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Coding Program Pyhhon

```
from PyQt5 import QtCore, QtGui, QtWidgets
import math

class Ui_MainWindow(QtWidgets.QScrollArea):
    def setupUi(self, MainWindow):
        MainWindow.setObjectName("MainWindow")
        MainWindow.resize(1270, 900)
        MainWindow.setStyleSheet("\n"
)
        self.centralwidget = QtWidgets.QWidget(MainWindow)
        self.centralwidget.setObjectName("centralwidget")

        self.gridLayoutWidget =
QtWidgets.QWidget(self.centralwidget)
        self.gridLayoutWidget.setGeometry(QtCore.QRect(30, 20,
341, 151))
        self.gridLayoutWidget.setObjectName("gridLayoutWidget")
        self.gridLayout =
QtWidgets.QGridLayout(self.gridLayoutWidget)
        self.gridLayout.setContentsMargins(0, 0, 0, 0)
        self.gridLayout.setObjectName("gridLayout")
        self.label_satuan_bj =
QtWidgets.QLabel(self.gridLayoutWidget)
        self.label_satuan_bj.setObjectName("label_satuan_bj")
        self.gridLayout.addWidget(self.label_satuan_bj, 2, 2, 1,
1)
        self.lineEdit_bj =
QtWidgets.QLineEdit(self.gridLayoutWidget)
        self.lineEdit_bj.setObjectName("lineEdit_bj")
        self.gridLayout.addWidget(self.lineEdit_bj, 2, 1, 1, 1)
        self.label_bj = QtWidgets.QLabel(self.gridLayoutWidget)
        self.label_bj.setObjectName("label_bj")
        self.gridLayout.addWidget(self.label_bj, 2, 0, 1, 1)
        self.label_tan = QtWidgets.QLabel(self.gridLayoutWidget)
        self.label_tan.setObjectName("label_tan")
        self.gridLayout.addWidget(self.label_tan, 1, 0, 1, 1)
        self.lineEdit_tan =
QtWidgets.QLineEdit(self.gridLayoutWidget)
        self.lineEdit_tan.setObjectName("lineEdit_tan")
        self.gridLayout.addWidget(self.lineEdit_tan, 1, 1, 1, 1)
        self.label_satuan_tan =
QtWidgets.QLabel(self.gridLayoutWidget)
        self.label_satuan_tan.setObjectName("label_satuan_tan")
        self.gridLayout.addWidget(self.label_satuan_tan, 1, 2, 1,
1)
        self.label_h2 = QtWidgets.QLabel(self.gridLayoutWidget)
        self.label_h2.setObjectName("label_h2")
        self.gridLayout.addWidget(self.label_h2, 0, 0, 1, 1)
        self.lineEdit_h2 =
QtWidgets.QLineEdit(self.gridLayoutWidget)
        self.lineEdit_h2.setObjectName("lineEdit_h2")
        self.gridLayout.addWidget(self.lineEdit_h2, 0, 1, 1, 1)
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        self.label_satuan_h2 =
QtWidgets.QLabel(self.gridLayoutWidget)
        self.label_satuan_h2.setObjectName("label_satuan_h2")
        self.gridLayout.addWidget(self.label_satuan_h2, 0, 2, 1,
1)

        self.btn_reset = QtWidgets.QPushButton(self.centralwidget)
        self.btn_reset.setGeometry(QtCore.QRect(80, 180, 101, 41))
        self.btn_reset.clicked.connect(self.reset)
        self.btn_reset.setObjectName("btn_reset")
        self.btn_hitung =
QtWidgets.QPushButton(self.centralwidget)
        self.btn_hitung.setGeometry(QtCore.QRect(200, 180, 101,
41))

        self.btn_hitung.clicked.connect(self.hitung)
        self.btn_hitung.setObjectName("btn_hitung")
        self.verticalLayoutWidget =
QtWidgets.QWidget(self.centralwidget)
        self.verticalLayoutWidget.setGeometry(QtCore.QRect(390,
20, 231, 214))

self.verticalLayoutWidget.setObjectName("verticalLayoutWidget")
        self.verticalLayout =
QtWidgets.QVBoxLayout(self.verticalLayoutWidget)
        self.verticalLayout.setContentsMargins(0, 0, 0, 0)
        self.verticalLayout.setObjectName("verticalLayout")
        self.label_stabilitas =
QtWidgets.QLabel(self.verticalLayoutWidget)
        font = QtGui.QFont()
        font.setPointSize(10)
        font.setBold(True)
        font.setWeight(75)
        self.label_stabilitas.setFont(font)
        self.label_stabilitas.setAlignment(QtCore.Qt.AlignCenter)
        self.label_stabilitas.setObjectName("label_stabilitas")
        self.verticalLayout.addWidget(self.label_stabilitas)
        self.horizontalLayout = QtWidgets.QHBoxLayout()
        self.horizontalLayout.setObjectName("horizontalLayout")
        self.label_fgs =
QtWidgets.QLabel(self.verticalLayoutWidget)
        sizePolicy =
QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.Maximum,
QtWidgets.QSizePolicy.Preferred)
        sizePolicy.setHorizontalStretch(0)
        sizePolicy.setVerticalStretch(0)

sizePolicy.setHeightForWidth(self.label_fgs.sizePolicy().hasHeight
ForWidth())
        self.label_fgs.setSizePolicy(sizePolicy)
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_fgs.setFont(font)
        self.label_fgs.setObjectName("label_fgs")
        self.horizontalLayout.addWidget(self.label_fgs)

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        self.label_hasil_fgs =
QtWidgets.QLabel(self.verticalLayoutWidget)
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_hasil_fgs.setFont(font)
        self.label_hasil_fgs.setObjectName("label_hasil_fgs")
        self.horizontalLayout.addWidget(self.label_hasil_fgs)
        self.verticalLayout.addWidget(self.horizontalLayout)
        self.horizontalLayout_3 = QtWidgets.QHBoxLayout()

self.horizontalLayout_3.setObjectName("horizontalLayout_3")
        self.label_fgl =
QtWidgets.QLabel(self.verticalLayoutWidget)
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_fgl.setFont(font)
        self.label_fgl.setObjectName("label_fgl")
        self.horizontalLayout_3.addWidget(self.label_fgl)
        self.label_hasil_fgl =
QtWidgets.QLabel(self.verticalLayoutWidget)
        sizePolicy =
QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.MinimumExpanding,
QtWidgets.QSizePolicy.Preferred)
        sizePolicy.setHorizontalStretch(0)
        sizePolicy.setVerticalStretch(0)

sizePolicy.setHeightForWidth(self.label_hasil_fgl.sizePolicy().has
HeightForWidth())
        self.label_hasil_fgl.setSizePolicy(sizePolicy)
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_hasil_fgl.setFont(font)
        self.label_hasil_fgl.setObjectName("label_hasil_fgl")
        self.horizontalLayout_3.addWidget(self.label_hasil_fgl)
        self.verticalLayout.addLayout(self.horizontalLayout_3)
        self.horizontalLayout_2 = QtWidgets.QHBoxLayout()

self.horizontalLayout_2.setObjectName("horizontalLayout_2")
        self.label_sf =
QtWidgets.QLabel(self.verticalLayoutWidget)
        sizePolicy =
QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.Preferred,
QtWidgets.QSizePolicy.Preferred)
        sizePolicy.setHorizontalStretch(0)
        sizePolicy.setVerticalStretch(0)

sizePolicy.setHeightForWidth(self.label_sf.sizePolicy().hasHeightF
orWidth())
        self.label_sf.setSizePolicy(sizePolicy)
        self.label_sf.setMaximumSize(QtCore.QSize(16777203,
16777215))
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_sf.setFont(font)

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self.label_sf.setAlignment(QtCore.Qt.AlignLeading|QtCore.Qt.AlignLeft|QtCore.Qt.AlignVCenter)
    self.label_sf.setObjectName("label_sf")
    self.horizontalLayout_2.addWidget(self.label_sf)
    self.label_hasil_sf =
QtWidgets.QLabel(self.verticalLayoutWidget)
    sizePolicy = QtWidgets.QSizePolicy(QtWidgets.QSizePolicy.MinimumExpanding,
QtWidgets.QSizePolicy.Preferred)
    sizePolicy.setHorizontalStretch(0)
    sizePolicy.setVerticalStretch(0)

sizePolicy.setHeightForWidth(self.label_hasil_sf.sizePolicy().hasHeightForWidth())
    self.label_hasil_sf.setSizePolicy(sizePolicy)
    font = QtGui.QFont()
    font.setPointSize(10)
    self.label_hasil_sf.setFont(font)
    self.label_hasil_sf.setObjectName("label_hasil_sf")
    self.horizontalLayout_2.addWidget(self.label_hasil_sf)
    self.verticalLayout.addWidget(self.horizontalLayout_2)
    self.formLayoutWidget =
QtWidgets.QWidget(self.centralwidget)
    self.formLayoutWidget.setGeometry(QtCore.QRect(70, 310,
141, 121))
    self.formLayoutWidget.setObjectName("formLayoutWidget")
    self.formLayout =
QtWidgets.QFormLayout(self.formLayoutWidget)

self.formLayout.setFieldGrowthPolicy(QtWidgets.QFormLayout.ExpandingFieldsGrow)

self.formLayout.setLabelAlignment(QtCore.Qt.AlignLeading|QtCore.Qt.AlignLeft|QtCore.Qt.AlignVCenter)

self.formLayout.setFormAlignment(QtCore.Qt.AlignLeading|QtCore.Qt.AlignLeft|QtCore.Qt.AlignTop)
    self.formLayout.setContentsMargins(0, 0, 0, 0)
    self.formLayout.setObjectName("formLayout")
    self.label_a = QtWidgets.QLabel(self.formLayoutWidget)
    self.label_a.setObjectName("label_a")
    self.formLayout.addWidget(0,
QtWidgets.QFormLayout.LabelRole, self.label_a)
    self.label_hasil_a =
QtWidgets.QLabel(self.formLayoutWidget)
    self.label_hasil_a.setObjectName("label_hasil_a")
    self.formLayout.addWidget(0,
QtWidgets.QFormLayout.FieldRole, self.label_hasil_a)
    self.label_b = QtWidgets.QLabel(self.formLayoutWidget)
    self.label_b.setObjectName("label_b")
    self.formLayout.addWidget(1,
QtWidgets.QFormLayout.LabelRole, self.label_b)

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        self.label_hasil_b =
QtWidgets.QLabel(self.formLayoutWidget)
        self.label_hasil_b.setObjectName("label_hasil_b")
        self.formLayout.addWidget(1,
QtWidgets.QFormLayout.FieldRole, self.label_hasil_b)
        self.label_b2 = QtWidgets.QLabel(self.formLayoutWidget)
        self.label_b2.setObjectName("label_b2")
        self.formLayout.addWidget(2,
QtWidgets.QFormLayout.LabelRole, self.label_b2)
        self.label_hasil_b2 =
QtWidgets.QLabel(self.formLayoutWidget)
        self.label_hasil_b2.setObjectName("label_hasil_b2")
        self.formLayout.addWidget(2,
QtWidgets.QFormLayout.FieldRole, self.label_hasil_b2)
        self.label_c = QtWidgets.QLabel(self.formLayoutWidget)
        self.label_c.setObjectName("label_c")
        self.formLayout.addWidget(3,
QtWidgets.QFormLayout.LabelRole, self.label_c)
        self.label_hasil_c =
QtWidgets.QLabel(self.formLayoutWidget)
        self.label_hasil_c.setObjectName("label_hasil_c")
        self.formLayout.addWidget(3,
QtWidgets.QFormLayout.FieldRole, self.label_hasil_c)
        self.label_d = QtWidgets.QLabel(self.formLayoutWidget)
        self.label_d.setObjectName("label_d")
        self.formLayout.addWidget(4,
QtWidgets.QFormLayout.LabelRole, self.label_d)
        self.label_hasil_d =
QtWidgets.QLabel(self.formLayoutWidget)
        self.label_hasil_d.setObjectName("label_hasil_d")
        self.formLayout.addWidget(4,
QtWidgets.QFormLayout.FieldRole, self.label_hasil_d)
        self.label_h1 = QtWidgets.QLabel(self.formLayoutWidget)
        self.label_h1.setObjectName("label_h1")
        self.formLayout.addWidget(5,
QtWidgets.QFormLayout.LabelRole, self.label_h1)
        self.label_hasil_h1 =
QtWidgets.QLabel(self.formLayoutWidget)
        self.label_hasil_h1.setObjectName("label_hasil_h1")
        self.formLayout.addWidget(5,
QtWidgets.QFormLayout.FieldRole, self.label_hasil_h1)
        self.label_judul_hasil =
QtWidgets.QLabel(self.centralwidget)
        self.label_judul_hasil.setGeometry(QtCore.QRect(110, 280,
71, 21))
        font = QtGui.QFont()
        font.setPointSize(14)
        self.label_judul_hasil.setFont(font)
        self.label_judul_hasil.setAlignment(QtCore.Qt.AlignCenter)
        self.label_judul_hasil.setObjectName("label_judul_hasil")
        self.label_perhitungan_tulangan =
QtWidgets.QLabel(self.centralwidget)

self.label_perhitungan_tulangan.setGeometry(QtCore.QRect(640, 20,
229, 49))

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font = QtGui.QFont()
font.setPointSize(10)
font.setBold(True)
font.setWeight(75)
self.label_perhitungan_tulangan.setFont(font)

self.label_perhitungan_tulangan.setAlignment(QtCore.Qt.AlignCenter)

self.label_perhitungan_tulangan.setObjectName("label_perhitungan_tulangan")
self.gridLayoutWidget_2 =
QtWidgets.QWidget(self.centralwidget)
self.gridLayoutWidget_2.setGeometry(QtCore.QRect(650, 60,
231, 31))

self.gridLayoutWidget_2.setObjectName("gridLayoutWidget_2")
self.gridLayout_2 =
QtWidgets.QGridLayout(self.gridLayoutWidget_2)
self.gridLayout_2.setContentsMargins(0, 0, 0, 0)
self.gridLayout_2.setObjectName("gridLayout_2")
self.label_diameter =
QtWidgets.QLabel(self.gridLayoutWidget_2)
self.label_diameter.setObjectName("label_diameter")
self.gridLayout_2.addWidget(self.label_diameter, 0, 0, 1,
1)

self.label_satuan_diameter =
QtWidgets.QLabel(self.gridLayoutWidget_2)

self.label_satuan_diameter.setObjectName("label_satuan_diameter")
self.gridLayout_2.addWidget(self.label_satuan_diameter, 0,
2, 1, 1)

self.lineEdit_diameter =
QtWidgets.QLineEdit(self.gridLayoutWidget_2)
self.lineEdit_diameter.setObjectName("lineEdit_diameter")
self.gridLayout_2.addWidget(self.lineEdit_diameter, 0, 1,
1, 1)

self.btn_hitung_tulangan =
QtWidgets.QPushButton(self.centralwidget)
self.btn_hitung_tulangan.setGeometry(QtCore.QRect(650,
100, 231, 31))
self.btn_hitung_tulangan.setEnabled(False)

self.btn_hitung_tulangan.clicked.connect(self.hitungTulangan)

self.btn_hitung_tulangan.setObjectName("btn_hitung_tulangan")
self.label_judul_tulangan_dinding =
QtWidgets.QLabel(self.centralwidget)

self.label_judul_tulangan_dinding.setGeometry(QtCore.QRect(680,
240, 191, 31))
font = QtGui.QFont()
font.setPointSize(10)
font.setBold(True)

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        font.setWeight(75)
        self.label_judul_tulangan_dinding.setFont(font)

self.label_judul_tulangan_dinding.setAlignment(QtCore.Qt.AlignLeading|QtCore.Qt.AlignLeft|QtCore.Qt.AlignVCenter)

self.label_judul_tulangan_dinding.setObjectName("label_judul_tulangan_dinding")
        self.label_tulangan_kaki =
QtWidgets.QLabel(self.centralwidget)
        self.label_tulangan_kaki.setGeometry(QtCore.QRect(680,
340, 191, 31))
        font = QtGui.QFont()
        font.setPointSize(10)
        font.setBold(True)
        font.setWeight(75)
        self.label_tulangan_kaki.setFont(font)

self.label_tulangan_kaki.setAlignment(QtCore.Qt.AlignLeading|QtCore.Qt.AlignLeft|QtCore.Qt.AlignVCenter)

self.label_tulangan_kaki.setObjectName("label_tulangan_kaki")
        self.label_judul_tulangan_susut =
QtWidgets.QLabel(self.centralwidget)

self.label_judul_tulangan_susut.setGeometry(QtCore.QRect(680, 440,
191, 31))
        font = QtGui.QFont()
        font.setPointSize(10)
        font.setBold(True)
        font.setWeight(75)
        self.label_judul_tulangan_susut.setFont(font)

self.label_judul_tulangan_susut.setAlignment(QtCore.Qt.AlignLeading|QtCore.Qt.AlignLeft|QtCore.Qt.AlignVCenter)

self.label_judul_tulangan_susut.setObjectName("label_judul_tulangan_susut")
        self.label_hasil_n_dinding =
QtWidgets.QLabel(self.centralwidget)
        self.label_hasil_n_dinding.setGeometry(QtCore.QRect(750,
270, 60, 13))

self.label_hasil_n_dinding.setObjectName("label_hasil_n_dinding")
        self.label_n_dinding =
QtWidgets.QLabel(self.centralwidget)
        self.label_n_dinding.setGeometry(QtCore.QRect(730, 270,
23, 13))
        self.label_n_dinding.setObjectName("label_n_dinding")
        self.label_hasil_d_dinding =
QtWidgets.QLabel(self.centralwidget)
        self.label_hasil_d_dinding.setGeometry(QtCore.QRect(750,
290, 60, 13))

self.label_hasil_d_dinding.setObjectName("label_hasil_d_dinding")

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        self.label_d_dinding =
QtWidgets.QLabel(self.centralwidget)
        self.label_d_dinding.setGeometry(QtCore.QRect(730, 290,
23, 13))
        self.label_d_dinding.setObjectName("label_d_dinding")
        self.label_hasil_s_dinding =
QtWidgets.QLabel(self.centralwidget)
        self.label_hasil_s_dinding.setGeometry(QtCore.QRect(750,
310, 60, 13))

self.label_hasil_s_dinding.setObjectName("label_hasil_s_dinding")
        self.label_s_dinding =
QtWidgets.QLabel(self.centralwidget)
        self.label_s_dinding.setGeometry(QtCore.QRect(730, 310,
23, 13))
        self.label_s_dinding.setObjectName("label_s_dinding")
        self.label_hasil_n_kaki =
QtWidgets.QLabel(self.centralwidget)
        self.label_hasil_n_kaki.setGeometry(QtCore.QRect(750, 370,
60, 13))

self.label_hasil_n_kaki.setObjectName("label_hasil_n_kaki")
        self.label_hasil_d_kaki =
QtWidgets.QLabel(self.centralwidget)
        self.label_hasil_d_kaki.setGeometry(QtCore.QRect(750, 390,
60, 13))

self.label_hasil_d_kaki.setObjectName("label_hasil_d_kaki")
        self.label_n_kaki = QtWidgets.QLabel(self.centralwidget)
        self.label_n_kaki.setGeometry(QtCore.QRect(730, 370, 23,
13))
        self.label_n_kaki.setObjectName("label_n_kaki")
        self.label_s_kaki = QtWidgets.QLabel(self.centralwidget)
        self.label_s_kaki.setGeometry(QtCore.QRect(730, 410, 23,
13))
        self.label_s_kaki.setObjectName("label_s_kaki")
        self.label_d_kaki = QtWidgets.QLabel(self.centralwidget)
        self.label_d_kaki.setGeometry(QtCore.QRect(730, 390, 23,
13))
        self.label_d_kaki.setObjectName("label_d_kaki")
        self.label_hasil_s_kaki =
QtWidgets.QLabel(self.centralwidget)
        self.label_hasil_s_kaki.setGeometry(QtCore.QRect(750, 410,
60, 13))

self.label_hasil_s_kaki.setObjectName("label_hasil_s_kaki")
        self.label_s_susut = QtWidgets.QLabel(self.centralwidget)
        self.label_s_susut.setGeometry(QtCore.QRect(730, 510, 33,
13))
        self.label_s_susut.setObjectName("label_s_susut")
        self.label_d_susut = QtWidgets.QLabel(self.centralwidget)
        self.label_d_susut.setGeometry(QtCore.QRect(730, 490, 33,
13))
        self.label_d_susut.setObjectName("label_d_susut")

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        self.label_hasil_d_susut =
QtWidgets.QLabel(self.centralwidget)
        self.label_hasil_d_susut.setGeometry(QQtCore.QRect(750,
490, 60, 13))

self.label_hasil_d_susut.setObjectName("label_hasil_d_susut")
        self.label_hasil_s_susut =
QtWidgets.QLabel(self.centralwidget)
        self.label_hasil_s_susut.setGeometry(QQtCore.QRect(750,
510, 60, 13))

self.label_hasil_s_susut.setObjectName("label_hasil_s_susut")
        self.label_hasil_n_susut =
QtWidgets.QLabel(self.centralwidget)
        self.label_hasil_n_susut.setGeometry(QQtCore.QRect(750,
470, 60, 13))

self.label_hasil_n_susut.setObjectName("label_hasil_n_susut")
        self.label_n_susut = QtWidgets.QLabel(self.centralwidget)
        self.label_n_susut.setGeometry(QQtCore.QRect(730, 470, 23,
13))
        self.label_n_susut.setObjectName("label_n_susut")
        self.label_judul_harga =
QtWidgets.QLabel(self.centralwidget)
        self.label_judul_harga.setGeometry(QQtCore.QRect(400, 250,
71, 21))
        font = QtGui.QFont()
        font.setPointSize(14)
        self.label_judul_harga.setFont(font)
        self.label_judul_harga.setAlignment(QQtCore.Qt.AlignCenter)
        self.label_judul_harga.setObjectName("label_judul_harga")
        self.label_judul_beton =
QtWidgets.QLabel(self.centralwidget)
        self.label_judul_beton.setGeometry(QQtCore.QRect(310, 280,
101, 21))
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_judul_beton.setFont(font)

self.label_judul_beton.setAlignment(QQtCore.Qt.AlignLeading|QQtCore.
Qt.AlignLeft|QQtCore.Qt.AlignVCenter)
        self.label_judul_beton.setObjectName("label_judul_beton")
        self.label_judul_dinding =
QtWidgets.QLabel(self.centralwidget)
        self.label_judul_dinding.setGeometry(QQtCore.QRect(310,
310, 171, 21))
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_judul_dinding.setFont(font)

self.label_judul_dinding.setAlignment(QQtCore.Qt.AlignLeading|QtCor
e.Qt.AlignLeft|QQtCore.Qt.AlignVCenter)

self.label_judul_dinding.setObjectName("label_judul_dinding")

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        self.label_judul_kaki =
QtWidgets.QLabel(self.centralwidget)
        self.label_judul_kaki.setGeometry(QtCore.QRect(310, 340,
171, 21))
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_judul_kaki.setFont(font)

self.label_judul_kaki.setAlignment(QtCore.Qt.AlignLeading|QtCore.Q
t.AlignLeft|QtCore.Qt.AlignVCenter)
        self.label_judul_kaki.setObjectName("label_judul_kaki")
        self.label_judul_susut =
QtWidgets.QLabel(self.centralwidget)
        self.label_judul_susut.setGeometry(QtCore.QRect(310, 370,
171, 21))
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_judul_susut.setFont(font)

self.label_judul_susut.setAlignment(QtCore.Qt.AlignLeading|QtCore.
Qt.AlignLeft|QtCore.Qt.AlignVCenter)
        self.label_judul_susut.setObjectName("label_judul_susut")
        self.label_bekisting_dinding =
QtWidgets.QLabel(self.centralwidget)
        self.label_bekisting_dinding.setGeometry(QtCore.QRect(310,
400, 171, 21))
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_bekisting_dinding.setFont(font)

self.label_bekisting_dinding.setAlignment(QtCore.Qt.AlignLeading|Q
tCore.Qt.AlignLeft|QtCore.Qt.AlignVCenter)

self.label_bekisting_dinding.setObjectName("label_bekisting_dindin
g")
        self.label_bekisting_kaki =
QtWidgets.QLabel(self.centralwidget)
        self.label_bekisting_kaki.setGeometry(QtCore.QRect(310,
430, 171, 21))
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_bekisting_kaki.setFont(font)

self.label_bekisting_kaki.setAlignment(QtCore.Qt.AlignLeading|QtCo
re.Qt.AlignLeft|QtCore.Qt.AlignVCenter)

self.label_bekisting_kaki.setObjectName("label_bekisting_kaki")
        self.label_harga_beton =
QtWidgets.QLabel(self.centralwidget)
        self.label_harga_beton.setGeometry(QtCore.QRect(490, 280,
101, 21))
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_harga_beton.setFont(font)

```

```

self.label_harga_beton.setAlignment(QtCore.Qt.AlignLeading|QtCore.
Qt.AlignLeft|QtCore.Qt.AlignVCenter)
    self.label_harga_beton.setObjectName("label_harga_beton")
    self.label_harga_tulangan_dinding =
QtWidgets.QLabel(self.centralwidget)

self.label_harga_tulangan_dinding.setGeometry(QtCore.QRect(490,
310, 101, 21))
    font = QtGui.QFont()
    font.setPointSize(10)
    self.label_harga_tulangan_dinding.setFont(font)

self.label_harga_tulangan_dinding.setAlignment(QtCore.Qt.AlignLead
ing|QtCore.Qt.AlignLeft|QtCore.Qt.AlignVCenter)

self.label_harga_tulangan_dinding.setObjectName("label_harga_tulan
gan_dinding")
    self.label_harga_tulangan_kaki =
QtWidgets.QLabel(self.centralwidget)

self.label_harga_tulangan_kaki.setGeometry(QtCore.QRect(490, 340,
101, 21))
    font = QtGui.QFont()
    font.setPointSize(10)
    self.label_harga_tulangan_kaki.setFont(font)

self.label_harga_tulangan_kaki.setAlignment(QtCore.Qt.AlignLeading
|QtCore.Qt.AlignLeft|QtCore.Qt.AlignVCenter)

self.label_harga_tulangan_kaki.setObjectName("label_harga_tulangan
_kaki")
    self.label_harga_tulangan_susut =
QtWidgets.QLabel(self.centralwidget)

self.label_harga_tulangan_susut.setGeometry(QtCore.QRect(490, 370,
101, 21))
    font = QtGui.QFont()
    font.setPointSize(10)
    self.label_harga_tulangan_susut.setFont(font)

self.label_harga_tulangan_susut.setAlignment(QtCore.Qt.AlignLeadin
g|QtCore.Qt.AlignLeft|QtCore.Qt.AlignVCenter)

self.label_harga_tulangan_susut.setObjectName("label_harga_tulanga
n_susut")
    self.label_harga_bekisting_dinding =
QtWidgets.QLabel(self.centralwidget)

self.label_harga_bekisting_dinding.setGeometry(QtCore.QRect(490,
400, 101, 21))
    font = QtGui.QFont()
    font.setPointSize(10)
    self.label_harga_bekisting_dinding.setFont(font)

```

```

self.label_harga_bekisting_dinding.setAlignment(QtCore.Qt.AlignLeading|QtCore.Qt.AlignLeft|QtCore.Qt.AlignVCenter)

self.label_harga_bekisting_dinding.setObjectName("label_harga_bekisting_dinding")
    self.label_harga_bekisting_kaki =
QtWidgets.QLabel(self.centralwidget)

self.label_harga_bekisting_kaki.setGeometry(QtCore.QRect(490, 430,
101, 21))
    font = QtGui.QFont()
    font.setPointSize(10)
    self.label_harga_bekisting_kaki.setFont(font)

self.label_harga_bekisting_kaki.setAlignment(QtCore.Qt.AlignLeading|QtCore.Qt.AlignLeft|QtCore.Qt.AlignVCenter)

self.label_harga_bekisting_kaki.setObjectName("label_harga_bekisting_kaki")
    self.label_satuan_harga =
QtWidgets.QLabel(self.centralwidget)
    self.label_satuan_harga.setGeometry(QtCore.QRect(930, 0,
229, 49))
    font = QtGui.QFont()
    font.setPointSize(10)
    font.setBold(True)
    font.setWeight(75)
    self.scrollArea =
QtWidgets.QScrollArea(self.centralwidget)
    self.scrollArea.setGeometry(QtCore.QRect(900, 20, 328,
471))
    self.scrollArea.setWidgetResizable(True)
    self.scrollArea.setObjectName("scrollArea")
    self.scrollAreaWidgetContents = QtWidgets.QWidget()
    self.scrollAreaWidgetContents.setGeometry(QtCore.QRect(0,
0, 309, 785))

self.scrollAreaWidgetContents.setObjectName("scrollAreaWidgetContents")
    self.verticalLayout_2 =
QtWidgets.QVBoxLayout(self.scrollAreaWidgetContents)
    self.verticalLayout_2.setObjectName("verticalLayout_2")
    self.label_satuan_harga =
QtWidgets.QLabel(self.scrollAreaWidgetContents)
    font = QtGui.QFont()
    font.setPointSize(10)
    font.setBold(True)
    font.setWeight(75)
    self.label_satuan_harga.setFont(font)

self.label_satuan_harga.setAlignment(QtCore.Qt.AlignCenter)

```

```

self.label_satuan_harga.setObjectName("label_perhitungan_tulangan_2")
        self.verticalLayout_2.addWidget(self.label_satuan_harga)
        self.label_judul_harga_beton =
QtWidgets.QLabel(self.scrollAreaWidgetContents)
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_judul_harga_beton.setFont(font)

self.label_judul_harga_beton.setAlignment(QtCore.Qt.AlignLeading|QtCore.Qt.AlignLeft|QtCore.Qt.AlignVCenter)

self.label_judul_harga_beton.setObjectName("label_judul_harga_beton")

self.verticalLayout_2.addWidget(self.label_judul_harga_beton)
        self.formLayout_2 = QtWidgets.QFormLayout()
        self.formLayout_2.setObjectName("formLayout_2")
        self.lineEdit_pekerja_beton =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_pekerja_beton.setObjectName("lineEdit_pekerja_beton")
        self.formLayout_2.setWidget(0,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_pekerja_beton)
        self.label_pekerja_beton =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_pekerja_beton.setObjectName("label_pekerja_beton")
        self.formLayout_2.setWidget(0,
QtWidgets.QFormLayout.LabelRole, self.label_pekerja_beton)
        self.label_tukang_batu_beton =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_tukang_batu_beton.setObjectName("label_tukang_batu_beton")
        self.formLayout_2.setWidget(1,
QtWidgets.QFormLayout.LabelRole, self.label_tukang_batu_beton)
        self.lineEdit_tukang_batu_beton =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_tukang_batu_beton.setObjectName("lineEdit_tukang_batu_beton")
        self.formLayout_2.setWidget(1,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_tukang_batu_beton)
        self.lineEdit_kepala_tukang_beton =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_kepala_tukang_beton.setObjectName("lineEdit_kepala_tukang_beton")
        self.formLayout_2.setWidget(2,
QtWidgets.QFormLayout.FieldRole,
self.lineEdit_kepala_tukang_beton)

```

```

        self.lineEdit_mandor_beton =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_mandor_beton.setObjectName("lineEdit_mandor_beton")
        self.formLayout_2.addWidget(3,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_mandor_beton)
        self.lineEdit_semen_beton =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_semen_beton.setObjectName("lineEdit_semen_beton")
        self.formLayout_2.addWidget(4,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_semen_beton)
        self.lineEdit_pasir_beton =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_pasir_beton.setObjectName("lineEdit_pasir_beton")
        self.formLayout_2.addWidget(5,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_pasir_beton)
        self.lineEdit_koral_beton =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_koral_beton.setObjectName("lineEdit_koral_beton")
        self.formLayout_2.addWidget(6,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_koral_beton)
        self.label_kepala_tukang_beton =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_kepala_tukang_beton.setObjectName("label_kepala_tukang
beton")
        self.formLayout_2.addWidget(2,
QtWidgets.QFormLayout.LabelRole, self.label_kepala_tukang_beton)
        self.label_mandor_beton =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_mandor_beton.setObjectName("label_mandor_beton")
        self.formLayout_2.addWidget(3,
QtWidgets.QFormLayout.LabelRole, self.label_mandor_beton)
        self.label_semen_beton =
QtWidgets.QLabel(self.scrollAreaWidgetContents)
        self.label_semen_beton.setObjectName("label_semen_beton")
        self.formLayout_2.addWidget(4,
QtWidgets.QFormLayout.LabelRole, self.label_semen_beton)
        self.label_pasir_beton =
QtWidgets.QLabel(self.scrollAreaWidgetContents)
        self.label_pasir_beton.setObjectName("label_pasir_beton")
        self.formLayout_2.addWidget(5,
QtWidgets.QFormLayout.LabelRole, self.label_pasir_beton)
        self.label_koral_beton =
QtWidgets.QLabel(self.scrollAreaWidgetContents)
        self.label_koral_beton.setObjectName("label_koral_beton")
        self.formLayout_2.addWidget(6,
QtWidgets.QFormLayout.LabelRole, self.label_koral_beton)
        self.label_air_beton =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

```



```

        self.label_air_beton.setObjectName("label_air_beton")
        self.formLayout_2.addWidget(7,
QtWidgets.QFormLayout.LabelRole, self.label_air_beton)
        self.lineEdit_air_beton =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_air_beton.setObjectName("lineEdit_air_beton")
        self.formLayout_2.addWidget(7,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_air_beton)
        self.verticalLayout_2.addLayout(self.formLayout_2)
        self.label_judul_harga_tulangan =
QtWidgets.QLabel(self.scrollAreaWidgetContents)
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_judul_harga_tulangan.setFont(font)

self.label_judul_harga_tulangan.setAlignment(QtCore.Qt.AlignLeading|QtCore.Qt.AlignLeft|QtCore.Qt.AlignVCenter)

self.label_judul_harga_tulangan.setObjectName("label_judul_harga_t
ulangan")

self.verticalLayout_2.addWidget(self.label_judul_harga_tulangan)
        self.formLayout_3 = QtWidgets.QFormLayout()
        self.formLayout_3.setObjectName("formLayout_3")
        self.label_pekerja_tulangan =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_pekerja_tulangan.setObjectName("label_pekerja_tulangan"
)
        self.formLayout_3.addWidget(0,
QtWidgets.QFormLayout.LabelRole, self.label_pekerja_tulangan)
        self.lineEdit_pekerja_tulangan =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_pekerja_tulangan.setObjectName("lineEdit_pekerja_tul
angan")
        self.formLayout_3.addWidget(0,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_pekerja_tulangan)
        self.label_tukang_besi_tulangan =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_tukang_besi_tulangan.setObjectName("label_tukang_besi_t
ulangan")
        self.formLayout_3.addWidget(1,
QtWidgets.QFormLayout.LabelRole, self.label_tukang_besi_tulangan)
        self.lineEdit_tukang_besi_tulangan =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_tukang_besi_tulangan.setObjectName("lineEdit_tukang_
besi_tulangan")
        self.formLayout_3.addWidget(1,
QtWidgets.QFormLayout.FieldRole,
self.lineEdit_tukang_besi_tulangan)

```

```

        self.label_kepala_tukang_tulangan =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_kepala_tukang_tulangan.setObjectName("label_kepala_tuka
ng_tulangan")
        self.formLayout_3.addWidget(2,
QtWidgets.QFormLayout.LabelRole,
self.label_kepala_tukang_tulangan)
        self.lineEdit_kepala_tukang_tulangan =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_kepala_tukang_tulangan.setObjectName("lineEdit_kepal
a_tukang_tulangan")
        self.formLayout_3.addWidget(2,
QtWidgets.QFormLayout.FieldRole,
self.lineEdit_kepala_tukang_tulangan)
        self.label_mandor_tulangan =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_mandor_tulangan.setObjectName("label_mandor_tulangan")
        self.formLayout_3.addWidget(3,
QtWidgets.QFormLayout.LabelRole, self.label_mandor_tulangan)
        self.lineEdit_mandor_tulangan =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_mandor_tulangan.setObjectName("lineEdit_mandor_tulan
gan")
        self.formLayout_3.addWidget(3,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_mandor_tulangan)
        self.label_besi_tulangan =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_besi_tulangan.setObjectName("label_besi_tulangan")
        self.formLayout_3.addWidget(4,
QtWidgets.QFormLayout.LabelRole, self.label_besi_tulangan)
        self.lineEdit_besi_tulangan =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_besi_tulangan.setObjectName("lineEdit_besi_tulangan"
)
        self.formLayout_3.addWidget(4,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_besi_tulangan)
        self.label_kawat_tulangan =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_kawat_tulangan.setObjectName("label_kawat_tulangan")
        self.formLayout_3.addWidget(5,
QtWidgets.QFormLayout.LabelRole, self.label_kawat_tulangan)
        self.lineEdit_kawat_tulangan =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_kawat_tulangan.setObjectName("lineEdit_kawat_tulanga
n")

```

```

        self.formLayout_3.setWidget(5,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_kawat_tulangan)
        self.verticalLayout_2.addLayout(self.formLayout_3)
        self.label_judul_harga_bekesting =
QtWidgets.QLabel(self.scrollAreaWidgetContents)
        font = QtGui.QFont()
        font.setPointSize(10)
        self.label_judul_harga_bekesting.setFont(font)

self.label_judul_harga_bekesting.setAlignment(QtCore.Qt.AlignLeadi
ng|QtCore.Qt.AlignLeft|QtCore.Qt.AlignVCenter)

self.label_judul_harga_bekesting.setObjectName("label_judul_harga
_bekesting")

self.verticalLayout_2.addWidget(self.label_judul_harga_bekesting)
        self.formLayout_4 = QtWidgets.QFormLayout()
        self.formLayout_4.setObjectName("formLayout_4")
        self.lineEdit_pekerja_bekesting =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_pekerja_bekesting.setObjectName("lineEdit_pekerja_be
kesting")
        self.formLayout_4.setWidget(0,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_pekerja_bekesting)
        self.label_pekerja_bekesting =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_pekerja_bekesting.setObjectName("label_pekerja_bekesting")
        self.formLayout_4.setWidget(0,
QtWidgets.QFormLayout.LabelRole, self.label_pekerja_bekesting)
        self.label_tukang_kayu_bekesting =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_tukang_kayu_bekesting.setObjectName("label_tukang_kayu
_bekesting")
        self.formLayout_4.setWidget(1,
QtWidgets.QFormLayout.LabelRole, self.label_tukang_kayu_bekesting)
        self.lineEdit_tukang_kayu_bekesting =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_tukang_kayu_bekesting.setObjectName("lineEdit_tukang
_kayu_bekesting")
        self.formLayout_4.setWidget(1,
QtWidgets.QFormLayout.FieldRole,
self.lineEdit_tukang_kayu_bekesting)
        self.lineEdit_kepala_tukang_bekesting =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_kepala_tukang_bekesting.setObjectName("lineEdit_kepa
la_tukang_bekesting")
        self.formLayout_4.setWidget(2,
QtWidgets.QFormLayout.FieldRole,
self.lineEdit_kepala_tukang_bekesting)

```

```

        self.lineEdit_mandor_bekesting =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_mandor_bekesting.setObjectName("lineEdit_mandor_beke
sting")
        self.formLayout_4.addWidget(3,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_mandor_bekesting)
        self.lineEdit_papan_bekesting =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_papan_bekesting.setObjectName("lineEdit_papan_bekest
ing")
        self.formLayout_4.addWidget(4,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_papan_bekesting)
        self.lineEdit_paku_bekesting =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_paku_bekesting.setObjectName("lineEdit_paku_bekestin
g")
        self.formLayout_4.addWidget(5,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_paku_bekesting)
        self.lineEdit_minyak_bekesting =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_minyak_bekesting.setObjectName("lineEdit_minyak_beke
sting")
        self.formLayout_4.addWidget(6,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_minyak_bekesting)
        self.label_kepala_tukang_bekesting =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_kepala_tukang_bekesting.setObjectName("label_kepala_tuk
ang_bekesting")
        self.formLayout_4.addWidget(2,
QtWidgets.QFormLayout.LabelRole,
self.label_kepala_tukang_bekesting)
        self.label_mandor_bekesting =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_mandor_bekesting.setObjectName("label_mandor_bekesting"
)
        self.formLayout_4.addWidget(3,
QtWidgets.QFormLayout.LabelRole, self.label_mandor_bekesting)
        self.label_papan_bekesting =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_papan_bekesting.setObjectName("label_papan_bekesting")
        self.formLayout_4.addWidget(4,
QtWidgets.QFormLayout.LabelRole, self.label_papan_bekesting)
        self.label_paku_bekesting =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_paku_bekesting.setObjectName("label_paku_bekesting")

```

```

        self.formLayout_4.addWidget(5,
QtWidgets.QFormLayout.LabelRole, self.label_paku_bekesting)
        self.label_minyak_bekesting =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_minyak_bekesting.setObjectName("label_minyak_bekesting"
)
        self.formLayout_4.addWidget(6,
QtWidgets.QFormLayout.LabelRole, self.label_minyak_bekesting)
        self.label_balok_bekesting =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_balok_bekesting.setObjectName("label_balok_bekesting")
        self.formLayout_4.addWidget(7,
QtWidgets.QFormLayout.LabelRole, self.label_balok_bekesting)
        self.lineEdit_balok_bekesting =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_balok_bekesting.setObjectName("lineEdit_balok_bekest
ing")
        self.formLayout_4.addWidget(7,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_balok_bekesting)
        self.lineEdit_plywood_bekesting =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_plywood_bekesting.setObjectName("lineEdit_plywood_be
kesting")
        self.formLayout_4.addWidget(8,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_plywood_bekesting)
        self.lineEdit_dolken_bekesting =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_dolken_bekesting.setObjectName("lineEdit_dolken_beke
sting")
        self.formLayout_4.addWidget(9,
QtWidgets.QFormLayout.FieldRole, self.lineEdit_dolken_bekesting)
        self.lineEdit_penjaga_jarak_bekesting =
QtWidgets.QLineEdit(self.scrollAreaWidgetContents)

self.lineEdit_penjaga_jarak_bekesting.setObjectName("lineEdit_penj
aga_jarak_bekesting")
        self.formLayout_4.addWidget(10,
QtWidgets.QFormLayout.FieldRole,
self.lineEdit_penjaga_jarak_bekesting)
        self.label_plywood_bekesting =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

self.label_plywood_bekesting.setObjectName("label_plywood_bekesting")
        self.formLayout_4.addWidget(8,
QtWidgets.QFormLayout.LabelRole, self.label_plywood_bekesting)
        self.label_dolken_bekesting =
QtWidgets.QLabel(self.scrollAreaWidgetContents)

```

```

self.label_dolken_bekesting.setObjectName("label_dolken_bekesting"
)
    self.formLayout_4.setWidget(9,
QtWidgets.QFormLayout.LabelRole, self.label_dolken_bekesting)
    self.label_penjaga_jarak_bekesting =
QtWidgets.QLabel(self.scrollAreaWidgetContents)
self.label_penjaga_jarak_bekesting.setObjectName("label_penjaga_ja
rak_bekesting")
    self.formLayout_4.setWidget(10,
QtWidgets.QFormLayout.LabelRole,
self.label_penjaga_jarak_bekesting)
    self.verticalLayout_2.addLayout(self.formLayout_4)
    self.pushButton_hitung_harga =
QtWidgets.QPushButton(self.scrollAreaWidgetContents)

self.pushButton_hitung_harga.clicked.connect(self.hitung_harga)

self.pushButton_hitung_harga.setObjectName("pushButton_hitung_harg
a")

self.verticalLayout_2.addWidget(self.pushButton_hitung_harga)
    self.scrollArea.setWidget(self.scrollAreaWidgetContents)
    self.gambar_dimensi = QtWidgets.QLabel(self.centralwidget)
    self.gambar_dimensi.setGeometry(QtCore.QRect(50, 460, 511,
281))
    self.gambar_dimensi.setText("")

self.gambar_dimensi.setPixmap(QtGui.QPixmap("gambar_dimensi.jpg"))
    self.gambar_dimensi.setScaledContents(True)
    self.gambar_dimensi.setObjectName("gambar_dimensi")
MainWindow.setCentralWidget(self.centralwidget)
    self.statusbar = QtWidgets.QStatusBar(MainWindow)
    self.statusbar.setObjectName("statusbar")
MainWindow.setStatusBar(self.statusbar)

self.retranslateUi(MainWindow)
QtCore.QMetaObject.connectSlotsByName(MainWindow)

def hitung(self):
    h2 = self.lineEdit_h2.text()
    tan = self.lineEdit_tan.text()
    bj = self.lineEdit_bj.text()

    if h2 == "" or tan == "" or bj == "":
        msg = QtWidgets.QMessageBox()
        msg.setWindowTitle("Error")
        msg.setText("Input tidak boleh kosong")
        msg.setIcon(QtWidgets.QMessageBox.Critical)
        msg.exec_()
    else:
        h2 = int(h2)
        tan = int(tan)

```

```

bj = int(bj)

if h2 > 0 and h2 <= 10:
    h2 = float(h2)
    tan = float(tan)
    bj = float(bj)
    ch = 0
    a = 0.3

    b = (h2 * 0.1) - a

    list_b2 = []
    x2 = 12
    end_x2 = 10
    for i in range(int(x2), int(end_x2), -1):
        b2 = h2 / i
        list_b2.append(b2)
    b2 = min(list_b2)
    print(list_b2)

    start_x = 0.4
    end_x = 0.7
    step = 0.1

    c_optimal = None
    for x in range(int(start_x * 10), int(end_x * 10)
+ 1, int(step * 10)):
        x = x / 10
        print("x = ", x)
        c = h2 * x
        d = h2 - b2

        h1 = (c - (a + b + (c / 3)))
        y_beton = 24
        wbt_1 = y_beton * c * b2

        wbt_2 = y_beton * a * d * 1
        wbt_3 = y_beton * b * 0.5 * d * 1
        jumlah_wbt = wbt_1 + wbt_2 + wbt_3
        wt = bj * h1 * d * 1
        jumlah_w = jumlah_wbt + wt
        rh = jumlah_w * (math.tan (2/3 * tan * math.pi
/ 180))

        ka = math.tan(((45 - (tan/2)) * math.pi / 180)
**2

        pa1 = h2 * bj * ka
        pa2 = 0.5 * pa1 * h2
        ph = pa2
        fgs = rh / ph

        mpa = pa2 * (h2 / 3)
        Lm1 = c / 2

```

```

Lm2 = ((1/3) * c) + (a / 2) + 0.1
Lm3 = (1/3) * c + ((2/3) * b)
Lm4 = ((1/3) * c) + a + b + (1.37 / 2)

M1 = wbt_1 * Lm1
M2 = wbt_2 * Lm2
M3 = wbt_3 * Lm3
M4 = wt * Lm4
M_total = M1 + M2 + M3 + M4

fgl = M_total / mpa

Nc = 0
Ny = 0
Nq = 0
if tan == 0:
    Nc = 5.7
    Ny = 0
    Nq = 1
elif tan == 0.1:
    Nc = 5.732
    Ny = 0.01
    Nq = 1.012
elif tan == 0.2:
    Nc = 5.764
    Ny = 0.02
    Nq = 1.024
elif tan == 0.3:
    Nc = 5.796
    Ny = 0.03
    Nq = 1.036
elif tan == 0.4:
    Nc = 5.828
    Ny = 0.04
    Nq = 1.048
elif tan == 0.5:
    Nc = 5.86
    Ny = 0.05
    Nq = 1.06
elif tan == 0.6:
    Nc = 5.892
    Ny = 0.06
    Nq = 1.072
elif tan == 0.7:
    Nc = 5.924
    Ny = 0.07
    Nq = 1.082
elif tan == 0.8:
    Nc = 5.956
    Ny = 0.08
    Nq = 1.096
elif tan == 0.9:
    Nc = 5.988
    Ny = 0.09

```



```
Nq = 1.108
elif tan == 1:
    Nc = 6.02
    Ny = 0.1
    Nq = 1.12
elif tan == 1.1:
    Nc = 6.052
    Ny = 0.11
    Nq = 1.132
elif tan == 1.2:
    Nc = 6.084
    Ny = 0.12
    Nq = 1.144
elif tan == 1.3:
    Nc = 6.116
    Ny = 0.13
    Nq = 1.156
elif tan == 1.4:
    Nc = 6.146
    Ny = 0.14
    Nq = 1.168
elif tan == 1.5:
    Nc = 6.18
    Ny = 0.15
    Nq = 1.18
elif tan == 1.6:
    Nc = 6.212
    Ny = 0.16
    Nq = 1.192
elif tan == 1.7:
    Nc = 6.244
    Ny = 0.17
    Nq = 1.204
elif tan == 1.8:
    Nc = 6.276
    Ny = 0.18
    Nq = 1.216
elif tan == 1.9:
    Nc = 6.308
    Ny = 0.19
    Nq = 1.228
elif tan == 2:
    Nc = 6.34
    Ny = 0.2
    Nq = 1.24
elif tan == 2.1:
    Nc = 6.372
    Ny = 0.21
    Nq = 1.252
elif tan == 2.2:
    Nc = 6.404
    Ny = 0.22
    Nq = 1.264
elif tan == 2.3:
    Nc = 6.436
```

```

Ny = 0.23
Nq = 1.276
elif tan == 2.4:
Nc = 6.468
Ny = 0.24
Nq = 1.288
elif tan == 2.5:
Nc = 6.5
Ny = 0.25
Nq = 1.3
elif tan == 2.6:
Nc = 6.532
Ny = 0.26
Nq = 1.312
elif tan == 2.7:
Nc = 6.563
Ny = 0.27
Nq = 1.324
elif tan == 2.8:
Nc = 6.596
Ny = 0.28
Nq = 1.336
elif tan == 2.9:
Nc = 6.628
Ny = 0.29
Nq = 1.348
elif tan == 3:
Nc = 6.66
Ny = 0.3
Nq = 1.36
elif tan == 3.1:
Nc = 6.692
Ny = 0.31
Nq = 1.372
elif tan == 3.2:
Nc = 6.724
Ny = 0.32
Nq = 1.384
elif tan == 3.3:
Nc = 6.756
Ny = 0.33
Nq = 1.396
elif tan == 3.4:
Nc = 6.788
Ny = 0.34
Nq = 1.408
elif tan == 3.5:
Nc = 6.82
Ny = 0.35
Nq = 1.42

```

```
elif tan == 3.6:
    Nc = 6.852
    Ny = 0.36
    Nq = 1.432
elif tan == 3.7:
    Nc = 6.884
    Ny = 0.37
    Nq = 1.444
elif tan == 3.8:
    Nc = 6.916
    Ny = 0.38
    Nq = 1.456
elif tan == 3.9:
    Nc = 6.948
    Ny = 0.39
    Nq = 1.468
elif tan == 4:
    Nc = 6.98
    Ny = 0.4
    Nq = 1.48
elif tan == 4.1:
    Nc = 7.012
    Ny = 0.41
    Nq = 1.492
elif tan == 4.2:
    Nc = 7.044
    Ny = 0.42
    Nq = 1.504
elif tan == 4.3:
    Nc = 7.076
    Ny = 0.43
    Nq = 1.516
elif tan == 4.4:
    Nc = 7.108
    Ny = 0.44
    Nq = 1.528
elif tan == 4.5:
    Nc = 7.14
    Ny = 0.45
    Nq = 1.54
elif tan == 4.6:
    Nc = 7.172
    Ny = 0.46
    Nq = 1.552
elif tan == 4.7:
    Nc = 7.204
    Ny = 0.47
    Nq = 1.564
elif tan == 4.8:
    Nc = 7.236
    Ny = 0.48
    Nq = 1.576
elif tan == 4.9:
    Nc = 7.268
    Ny = 0.49
```

```

Nq = 1.588
elif tan == 5:
    Nc = 7.3
    Ny = 0.5
    Nq = 1.6
elif tan == 5:
    Nc = 7.3
    Ny = 0.5
    Nq = 1.6
elif tan == 5.1:
    Nc = 7.346
    Ny = 514
    Nq = 1.622
elif tan == 5.2:
    Nc = 7.392
    Ny = 528
    Nq = 1.644
elif tan == 5.3:
    Nc = 7.438
    Ny = 542
    Nq = 1.666
elif tan == 5.4:
    Nc = 7.484
    Ny = 556
    Nq = 1.688
elif tan == 5.5:
    Nc = 7.53
    Ny = 0.57
    Nq = 1.71
elif tan == 5.6:
    Nc = 7.576
    Ny = 584
    Nq = 1.732
elif tan == 5.7:
    Nc = 7.622
    Ny = 598
    Nq = 1.754
elif tan == 5.8:
    Nc = 7.668
    Ny = 612
    Nq = 1.776
elif tan == 5.9:
    Nc = 7.714
    Ny = 626
    Nq = 1.798
elif tan == 6:
    Nc = 7.76
    Ny = 0.64
    Nq = 1.82
elif tan == 6.1:
    Nc = 7.806
    Ny = 654
    Nq = 1.842
elif tan == 6.2:

```

```
Nc = 7.852
Ny = 668
Nq = 1.864
elif tan == 6.3:
    Nc = 7.898
    Ny = 682
    Nq = 1.886
elif tan == 6.4:
    Nc = 7.944
    Ny = 696
    Nq = 1.908
elif tan == 6.5:
    Nc = 7.99
    Ny = 0.71
    Nq = 1.93
elif tan == 6.6:
    Nc = 8.036
    Ny = 724
    Nq = 1.952
elif tan == 6.7:
    Nc = 8.082
    Ny = 738
    Nq = 1.974
elif tan == 6.8:
    Nc = 8.128
    Ny = 752
    Nq = 1.996
elif tan == 6.9:
    Nc = 8.174
    Ny = 766
    Nq = 2.018
elif tan == 7:
    Nc = 8.22
    Ny = 0.78
    Nq = 2.04
elif tan == 7.1:
    Nc = 8.266
    Ny = 794
    Nq = 2.062
elif tan == 7.2:
    Nc = 8.312
    Ny = 808
    Nq = 2.084
elif tan == 7.3:
    Nc = 8.358
    Ny = 822
    Nq = 2.106
elif tan == 7.4:
    Nc = 8.404
    Ny = 836
    Nq = 2.128
elif tan == 7.5:
    Nc = 8.45
    Ny = 0.85
    Nq = 2.15
```

```
elif tan == 7.6:
    Nc = 8.496
    Ny = 864
    Nq = 2.172
elif tan == 7.7:
    Nc = 8.542
    Ny = 878
    Nq = 2.194
elif tan == 7.8:
    Nc = 8.588
    Ny = 892
    Nq = 2.216
elif tan == 7.9:
    Nc = 8.634
    Ny = 906
    Nq = 2.238
elif tan == 8:
    Nc = 8.68
    Ny = 0.92
    Nq = 2.26
elif tan == 8.1:
    Nc = 8.726
    Ny = 934
    Nq = 2.282
elif tan == 8.2:
    Nc = 8.772
    Ny = 948
    Nq = 2.304
elif tan == 8.3:
    Nc = 8.818
    Ny = 962
    Nq = 2.326
elif tan == 8.4:
    Nc = 8.864
    Ny = 976
    Nq = 2.348
elif tan == 8.5:
    Nc = 8.91
    Ny = 0.99
    Nq = 2.37
elif tan == 8.6:
    Nc = 8.956
    Ny = 1.004
    Nq = 2.392
elif tan == 8.7:
    Nc = 9.002
    Ny = 1.018
    Nq = 2.414
elif tan == 8.8:
    Nc = 9.048
    Ny = 1.032
    Nq = 2.436
elif tan == 8.9:
    Nc = 9.094
```

```

Ny = 1.046
Nq = 2.458
elif tan == 9:
    Nc = 9.14
    Ny = 1.06
    Nq = 2.48
elif tan == 9.1:
    Nc = 9.186
    Ny = 1.074
    Nq = 2.502
elif tan == 9.2:
    Nc = 9.232
    Ny = 1.088
    Nq = 2.524
elif tan == 9.3:
    Nc = 9.278
    Ny = 1.102
    Nq = 2.546
elif tan == 9.4:
    Nc = 9.324
    Ny = 1.116
    Nq = 2.568
elif tan == 9.5:
    Nc = 9.37
    Ny = 1.13
    Nq = 2.59
elif tan == 9.6:
    Nc = 9.416
    Ny = 1.144
    Nq = 2.612
elif tan == 9.7:
    Nc = 9.462
    Ny = 1.158
    Nq = 2.634
elif tan == 9.8:
    Nc = 9.508
    Ny = 1.172
    Nq = 2.656
elif tan == 9.9:
    Nc = 9.554
    Ny = 1.186
    Nq = 2.678
elif tan == 10:
    Nc = 9.6
    Ny = 1.2
    Nq = 2.7
elif sudut_geser == 11:
    Nc = 10.26
    Nq = 3.04
    Ny = 1.46
elif sudut_geser == 12:

```

```
Nc = 10.92
Nq = 3.38
Ny = 1.72
elif sudut_geser == 13:
    Nc = 11.58
    Nq = 3.72
    Ny = 1.98
elif sudut_geser == 14:
    Nc = 12.24
    Nq = 4.06
    Ny = 2.24
elif sudut_geser == 15:
    Nc = 12.9
    Nq = 4.4
    Ny = 2.5
elif sudut_geser == 16:
    Nc = 13.86
    Nq = 5
    Ny = 11.6
elif sudut_geser == 17:
    Nc = 14.82
    Nq = 5.6
    Ny = 9.62
elif sudut_geser == 18:
    Nc = 15.78
    Nq = 6.2
    Ny = 8.08
elif sudut_geser == 19:
    Nc = 16.74
    Nq = 6.8
    Ny = 6.54
elif sudut_geser == 20:
    Nc = 17.7
```


Nq = 7.4

Ny = 5

elif sudut_geser == 21:

Nc = 19.18

Nq = 8.46

Ny = 5.94

elif sudut_geser == 22:

Nc = 20.66

Nq = 9.52

Ny = 6.88

elif sudut_geser == 23:

Nc = 22.14

Nq = 10.58

Ny = 7.82

elif sudut_geser == 24:

Nc = 23.62

Nq = 11.64

Ny = 8.76

elif sudut_geser == 25:

Nc = 25.1

Nq = 12.7

Ny = 9.7

elif sudut_geser == 26:

Nc = 27.52

Nq = 14.66

Ny = 11.7

elif sudut_geser == 27:

Nc = 29.94

Nq = 16.62

Ny = 13.7

elif sudut_geser == 28:

Nc = 32.36

Nq = 18.58

```
Ny = 15.7
elif sudut_geser == 29:
    Nc = 34.78
    Nq = 20.54
    Ny = 17.7
elif sudut_geser == 30:
    Nc = 37.2
    Nq = 22.5
    Ny = 19.7
elif sudut_geser == 31:
    Nc = 41.5
    Nq = 26
    Ny = 23.53
elif sudut_geser == 32:
    Nc = 44.9
    Nq = 29.5
    Ny = 27.35
elif sudut_geser == 33:
    Nc = 48.75
    Nq = 33
    Ny = 31.18
elif sudut_geser == 34:
    Nc = 52.6
    Nq = 36.5
    Ny = 35
elif sudut_geser == 35:
    Nc = 57.8
    Nq = 41.4
    Ny = 42.4
elif sudut_geser == 36:
    Nc = 65.38
    Nq = 49.38
    Ny = 54
```

```
elif sudut_geser == 37:
```

```
    Nc = 72.96
```

```
    Nq = 57.36
```

```
    Ny = 65.6
```

```
elif sudut_geser == 38:
```

```
    Nc = 80.54
```

```
    Nq = 65.34
```

```
    Ny = 77.2
```

```
elif sudut_geser == 39:
```

```
    Nc = 88.12
```

```
    Nq = 73.32
```

```
    Ny = 88.8
```

```
elif sudut_geser == 40:
```

```
    Nc = 95.7
```

```
    Nq = 81.3
```

```
    Ny = 100.4
```

```
elif sudut_geser == 41:
```

```
    Nc = 111.2
```

```
    Nq = 99.7
```

```
    Ny = 139.82
```

```
elif sudut_geser == 42:
```

```
    Nc = 126.34
```

```
    Nq = 118.1
```

```
    Ny = 179.24
```

```
elif sudut_geser == 43:
```

```
    Nc = 141.66
```

```
    Nq = 136.5
```

```
    Ny = 218.66
```

```
elif sudut_geser == 44:
```

```
    Nc = 156.98
```

```
    Nq = 154.9
```

```
    Ny = 258.08
```

```
elif sudut_geser == 45:
```

```

Nc = 172.3
Nq = 173.3
Ny = 297.5

elif sudut_geser == 46:
    Nc = 200.97
    Nq = 211.5
    Ny = 458.37

elif sudut_geser == 47:
    Nc = 229.64
    Nq = 249.7
    Ny = 619.23

elif sudut_geser == 48:
    Nc = 258.3
    Nq = 287.9
    Ny = 780.1

elif sudut_geser == 49:
    Nc = 302.9
    Nq = 351.5
    Ny = 966.5

elif sudut_geser == 50:
    Nc = 347.5
    Nq = 415.1
    Ny = 1152.2

elif sudut_geser == 49.89:
    Nc = 342.7
    Nq = 408.1
    Ny = 1132.7

elif tan == 50:
    Nc = 347.5
    Ny = 1153.2
    Nq = 415.1

e = (c / 2) - (M_total - mpa) / jumlah_w

B_aksen = c - (2 * e)

```

```

bj * Nq

qu = ch * Nc + 0 * bj * Ny + 0.5 * B_aksen *

q = jumlah_w / c * (1 + 6 * e)
print("qu = ", qu)
print("q = ", q)

sf = qu / q

if fgl >= 1.5 and fgs >= 1.5 and sf >= 3:
    c_optimal = c
    self.label_hasil_fgs.setText("= Aman")
    self.label_hasil_fgl.setText("= Aman")
    self.label_hasil_sf.setText("= Aman")
    break
else:
    c_optimal = None
    self.label_hasil_fgs.setText("= Perbesar
Dimensi DPT")
    self.label_hasil_fgl.setText("= Perbesar
Dimensi DPT")
    self.label_hasil_sf.setText("= Perbesar
Dimensi DPT")

print("c = ", c)
print("c optimal = ", c_optimal)

if c_optimal is not None:
    print("Nilai c optimal yang aman:", c_optimal)
    self.label_hasil_c.setText(str(c_optimal) + "
m")

# a = round(a, 2)
b = round(b, 2)
b2 = round(b2, 2)
c = round(c, 2)
d = round(d, 2)
h1 = round(h1, 2)

print("input data tanah")
print("h2 = ", h2)
print("tan = ", tan)
print("bj = ", bj)
print("ch = ", ch)
print("hasil dimensi")
print("a = ", a)
print("b = ", b)
print("b2 = ", b2)

print("d = ", d)
print("h1 = ", h1)

self.label_hasil_a.setText(str(a) + " m")
self.label_hasil_b.setText(str(b) + " m")
self.label_hasil_b2.setText(str(b2) + " m")

```

```

self.label_hasil_c.setText(str(c) + " m")
self.label_hasil_d.setText(str(d) + " m")
self.label_hasil_h1.setText(str(h1) + " m")

if fgs < 1.5 or fgl < 1.5 or sf < 3:
    self.btn_hitung_tulangan.setEnabled(False)
else:
    self.btn_hitung_tulangan.setEnabled(True)

#cetak analisis stabilitas
print("hasil analisis stabilitas")
print("fgs = ", fgs)
print("fgl = ", fgl)
print("sf = ", sf)
else:
    msg = QtWidgets.QMessageBox()
    msg.setWindowTitle("Error")
    msg.setText("Input Dimensi tidak valid")
    msg.setIcon(QtWidgets.QMessageBox.Critical)
    msg.exec_()

def hitungTulangan(self):
    diameter = self.lineEdit_diameter.text()
    diameter = float(diameter)

    data_diameter = [6, 10, 13, 16, 19, 22, 25, 29, 32, 35,
38, 41]

    if diameter == 6 or diameter==10:
        msg = QtWidgets.QMessageBox()
        msg.setWindowTitle("Error")
        msg.setText("Diameter tidak valid, gunakan diameter
diatasnya")
        msg.setIcon(QtWidgets.QMessageBox.Critical)
        msg.exec_()
    elif diameter not in data_diameter:
        msg = QtWidgets.QMessageBox()
        msg.setWindowTitle("Error")
        msg.setText("Diameter tidak terdaftar")
        msg.setIcon(QtWidgets.QMessageBox.Critical)
        msg.exec_()
    else:
        h2 = self.lineEdit_h2.text()
        tan = self.lineEdit_tan.text()
        bj = self.lineEdit_bj.text()
        h2 = float(h2)
        tan = float(tan)
        bj = float(bj)
        ch = 0
        a = 0.3

```

```

b = (h2 * 0.1) - a

list_b2 = []
x2 = 12
end_x2 = 10
for i in range(int(x2), int(end_x2), -1):
    b2 = h2 / i
    list_b2.append(b2)
b2 = min(list_b2)
print(list_b2)

start_x = 0.4
end_x = 0.7
step = 0.1
c_optimal = None
for x in range(int(start_x * 10), int(end_x * 10) + 1,
int(step * 10)):
    x = x / 10
    print("x = ", x)
    c = h2 * x
    d = h2 - b2

    h1 = (c - (a + b + (c / 3)))
    y_beton = 24
    wbt_1 = y_beton * c * b2

    wbt_2 = y_beton * a * d * 1
    wbt_3 = y_beton * b * 0.5 * d * 1
    jumlah_wbt = wbt_1 + wbt_2 + wbt_3
    wt = bj * h1 * d * 1
    jumlah_w = jumlah_wbt + wt
    rh = jumlah_w * (math.tan (2/3 * tan * math.pi /
180))

    ka = math.tan((45 - (tan/2)) * math.pi / 180) **2
    pa1 = h2 * bj * ka
    pa2 = 0.5 * pa1 * h2
    ph = pa2
    fgs = rh / ph
    mpa = pa2 * (h2 / 3)
    Lm1 = c / 2
    Lm2 = ((1/3) * c) + (a / 2) + 0.1
    Lm3 = (1/3) * c + ((2/3) * b)
    Lm4 = ((1/3) * c) + a + b + (1.37 / 2)
    M1 = wbt_1 * Lm1
    M2 = wbt_2 * Lm2
    M3 = wbt_3 * Lm3
    M4 = wt * Lm4
    M_total = M1 + M2 + M3 + M4
    fgl = M_total / mpa
    Nc = 0
    Ny = 0
    Nq = 0
    if tan == 0:
        Nc = 5.7
        Ny = 0

```

```

Nq = 1
elif tan == 5:
    Nc = 7.3
    Ny = 0.5
    Nq = 1.6
elif tan == 10:
    Nc = 9.6
    Ny = 1.2
    Nq = 2.7
elif tan == 15:
    Nc = 12.9
    Ny = 2.5
    Nq = 4.4
elif tan == 20:
    Nc = 17.7
    Ny = 5
    Nq = 7.4
elif tan == 25:
    Nc = 25.1
    Ny = 9.7
    Nq = 12.7
elif tan == 30:
    Nc = 37.2
    Ny = 19.7
    Nq = 22.5
elif tan == 34:
    Nc = 52.6
    Ny = 35
    Nq = 36.5
elif tan == 35:
    Nc = 57.8
    Ny = 42.4
    Nq = 41.4
elif tan == 40:
    Nc = 95.7
    Ny = 100.4
    Nq = 81.3
elif tan == 45:
    Nc = 172.3
    Ny = 297.5
    Nq = 173.3
elif tan == 48:
    Nc = 258.3
    Ny = 780.1
    Nq = 287.9
elif tan == 50:
    Nc = 347.5
    Ny = 1153.2
    Nq = 415.1

```

```

e = (c / 2) - (M_total - mpa) / jumlah_w
B_aksen = c - (2 * e)
qu = ch * Nc + 0 * bj * Ny + 0.5 * B_aksen * bj *

```

Nq


```

    q = jumlah_w / c * (1 + 6 * e)
    print("qu = ", qu)
    print("q = ", q)
    sf = qu / q
ka = math.tan((45 - (tan/2)) * math.pi / 180) **2
tebal_efektif = 300 - 75 - (0.5 * diameter)
Pbal = ((0.85 * 24 * 0.85) / 420) * (600 / (600 -
420))
pa = 0.5 * bj * ka * h2**2
Ma = pa * (h2 / 3)
Mu = (1.4 * Ma) * 1000000
AsMin = (1.4 / 420) * 1000 * tebal_efektif
AsMax = tebal_efektif * 1000 * Pbal
asb = 1/4 * 3.14 * diameter**2

n = 0
hasil = []

for i in range(10):
    As = asb * n + 1
    if As >= AsMin:
        hasil.append(n + 1)
    n += 1

# Ambil nilai n terkecil
n = min(hasil, default=0)
As = asb * n
a = (As * 420) / (0.85 * 24 * 1000)
Mn = (0.9 * (As * 420) * (tebal_efektif - (a / 2)))
SR = Mu / Mn
Smin = diameter + 25
s = (1000 - 2 * 75) / (n - 1)

if As < AsMin and As < AsMax and SR <= 1:
    closest_diameter = min(data_diameter, key=lambda
x: abs(x - diameter))
    diameter = closest_diameter

a = 0.3
tebal_dinding = a * 1000
AsMin_susut = 0.002 * tebal_dinding * 1000
Asperlu = AsMin_susut / 2
n_susut = Asperlu / (0.25 * 3.14 * diameter**2)
n_susut = math.ceil(n_susut)
s_susut = 1000 / n_susut

s = round(s, 3)
s_susut = round(s_susut, 3)

self.label_hasil_n_dinding.setText(str(n) + " bh")
self.label_hasil_d_dinding.setText(str(diameter) + "
mm")

self.label_hasil_s_dinding.setText(str(s) + " mm")
self.label_hasil_n_kaki.setText(str(n) + " bh")
self.label_hasil_d_kaki.setText(str(diameter) + " mm")

```

```

self.label_hasil_s_kaki.setText(str(s) + " mm")
self.label_hasil_n_susut.setText(str(n_susut) + " bh")
self.label_hasil_d_susut.setText(str(diameter) + "
mm")

self.label_hasil_s_susut.setText(str(s_susut) + " mm")

#cetak tulangan
print("diameter input = ", diameter)
print("hasil tulangan dinding")
print("n = ", n)
print("d = ", diameter)
print("s = ", s)
print("hasil tulangan kaki")
print("n = ", n)
print("d = ", diameter)
print("s = ", s)
print("hasil tulangan susut")
print("n = ", n_susut)
print("d = ", diameter)
print("s = ", s_susut)

def hitung_harga(self):
#hitung harga pekerjaan beton
pekerja_beton = self.lineEdit_pekerja_beton.text()
tukang_batu_beton = self.lineEdit_tukang_batu_beton.text()
kepala_tukang_beton =
self.lineEdit_kepala_tukang_beton.text()
mandor_beton = self.lineEdit_mandor_beton.text()
semen_beton = self.lineEdit_semen_beton.text()
pasir_beton = self.lineEdit_pasir_beton.text()
koral_beton = self.lineEdit_koral_beton.text()
air_beton = self.lineEdit_air_beton.text()

h2 = self.lineEdit_h2.text()
tan = self.lineEdit_tan.text()
bj = self.lineEdit_bj.text()

h2 = float(h2)
tan = float(tan)
bj = float(bj)
ch = 0

a = 0.3

b = (h2 * 0.1) - a

list_b2 = []
x2 = 12
end_x2 = 10
for i in range(int(x2), int(end_x2), -1):
    b2 = h2 / i
    list_b2.append(b2)
b2 = min(list_b2)
print(list_b2)

```

```

start_x = 0.4
end_x = 0.7
step = 0.1

c_optimal = None

for x in range(int(start_x * 10), int(end_x * 10) + 1,
int(step * 10)):
    x = x / 10
    print("x = ", x)
    c = h2 * x
    d = h2 - b2

    h1 = (c - (a + b + (c / 3)))
    y_beton = 24
    wbt_1 = y_beton * c * b2

    wbt_2 = y_beton * a * d * 1
    wbt_3 = y_beton * b * 0.5 * d * 1
    jumlah_wbt = wbt_1 + wbt_2 + wbt_3
    wt = bj * h1 * d * 1
    jumlah_w = jumlah_wbt + wt
    rh = jumlah_w * (math.tan (2/3 * tan * math.pi / 180))

    ka = math.tan((45 - (tan/2)) * math.pi / 180) **2
    pa1 = h2 * bj * ka
    pa2 = 0.5 * pa1 * h2
    ph = pa2
    fgs = rh / ph

    mpa = pa2 * (h2 / 3)
    Lm1 = c / 2
    Lm2 = ((1/3) * c) + (a / 2) + 0.1
    Lm3 = (1/3) * c + ((2/3) * b)
    Lm4 = ((1/3) * c ) + a + b + (1.37 / 2)

    M1 = wbt_1 * Lm1
    M2 = wbt_2 * Lm2
    M3 = wbt_3 * Lm3
    M4 = wt * Lm4
    M_total = M1 + M2 + M3 + M4

    fgl = M_total / mpa

Nc = 0
Ny = 0
Nq = 0
if tan == 0:
    Nc = 5.7
    Ny = 0
    Nq = 1
elif tan == 5:
    Nc = 7.3
    Ny = 0.5

```

```

Nq = 1.6
elif tan == 10:
    Nc = 9.6
    Ny = 1.2
    Nq = 2.7
elif tan == 15:
    Nc = 12.9
    Ny = 2.5
    Nq = 4.4
elif tan == 20:
    Nc = 17.7
    Ny = 5
    Nq = 7.4
elif tan == 25:
    Nc = 25.1
    Ny = 9.7
    Nq = 12.7
elif tan == 30:
    Nc = 37.2
    Ny = 19.7
    Nq = 22.5
elif tan == 34:
    Nc = 52.6
    Ny = 35
    Nq = 36.5
elif tan == 35:
    Nc = 57.8
    Ny = 42.4
    Nq = 41.4
elif tan == 40:
    Nc = 95.7
    Ny = 100.4
    Nq = 81.3
elif tan == 45:
    Nc = 172.3
    Ny = 297.5
    Nq = 173.3
elif tan == 48:
    Nc = 258.3
    Ny = 780.1
    Nq = 287.9
elif tan == 50:
    Nc = 347.5
    Ny = 1153.2
    Nq = 415.1

e = (c / 2) - (M_total - mpa) / jumlah_w

B_aksen = c - (2 * e)

qu = ch * Nc + 0 * bj * Ny + 0.5 * B_aksen * bj * Nq
q = jumlah_w / c * (1 + 6 * e)
print("qu = ", qu)
print("q = ", q)

```

```

        sf = qu / q

        a = round(a, 2)
        b = round(b, 2)
        b2 = round(b2, 2)
        c = round(c, 2)
        d = round(d, 2)
        h1 = round(h1, 2)

        if pekerja_beton == "" or tukang_batu_beton == "" or
        kepala_tukang_beton == "" or mandor_beton == "" or semen_beton ==
        "" or pasir_beton == "" or koral_beton == "" or air_beton == "":
            msg = QtWidgets.QMessageBox()
            msg.setIcon(QtWidgets.QMessageBox.Critical)
            msg.setText("Harga perhitungan beton tidak boleh
kosong")
            msg.setWindowTitle("Error")
            msg.exec_()
        else:
            pekerja_beton = float(pekerja_beton)
            tukang_batu_beton = float(tukang_batu_beton)
            kepala_tukang_beton = float(kepala_tukang_beton)
            mandor_beton = float(mandor_beton)
            semen_beton = float(semen_beton)
            pasir_beton = float(pasir_beton)
            koral_beton = float(koral_beton)
            air_beton = float(air_beton)

            pekerja_beton = pekerja_beton * 1.65
            tukang_batu_beton = tukang_batu_beton * 0.275
            kepala_tukang_beton = kepala_tukang_beton * 0.028
            mandor_beton = mandor_beton * 0.083
            semen_beton = semen_beton * 406
            pasir_beton = pasir_beton * 0.489
            koral_beton = koral_beton * 0.760
            air_beton = air_beton * 215

            total_sementara_beton = pekerja_beton +
            tukang_batu_beton + kepala_tukang_beton + mandor_beton +
            semen_beton + pasir_beton + koral_beton + air_beton
            profit_beton = total_sementara_beton * 0.1
            total_beton = total_sementara_beton + profit_beton
            volume_beton = (0.35 * d * 1) + (c * b2 * 1) + (0.5 *
            b * d * 1)
            volume_beton = round(volume_beton, 2)
            harga_akhir = total_beton * volume_beton
            format_harga_akhir_beton =
            "{:,.2f}".format(harga_akhir_beton)
            self.label_harga_beton.setText("Rp. " +
            str(format_harga_akhir_beton))

            print("\nhasil perhitungan harga beton")
            print("pekerja beton = ", pekerja_beton)
            print("tukang batu beton = ", tukang_batu_beton)
            print("kepala tukang beton = ", kepala_tukang_beton)

```

```

print("mandor beton = ", mandor_beton)
print("semen beton = ", semen_beton)
print("pasir beton = ", pasir_beton)
print("koral beton = ", koral_beton)
print("air beton = ", air_beton)
print("=====")
print("harga sementara satuan pekerjaan beton = ",
total_sementara_beton)
print("total harga satuan pekerjaan beton = ",
total_beton)
print("profit beton = ", profit_beton)
print("volume beton = ", volume_beton)
print("harga akhir beton = ", format_harga_akhir_beton)
print("=====\n")

#hitung harga pekerjaan tulangan
pekerja_tulangan = self.lineEdit_pekerja_tulangan.text()
tukang_besi_tulangan =
self.lineEdit_tukang_besi_tulangan.text()
kepala_tukang_tulangan=
self.lineEdit_kepala_tukang_tulangan.text()
mandor_tulangan = self.lineEdit_mandor_tulangan.text()
besi_tulangan = self.lineEdit_besi_tulangan.text()
kawat_tulangan = self.lineEdit_kawat_tulangan.text()

diameter = self.lineEdit_diameter.text()
diameter = float(diameter)

data_diameter = [6, 10, 13, 16, 19, 22, 25, 29, 32, 35,
38, 41]

h2 = self.lineEdit_h2.text()
tan = self.lineEdit_tan.text()
bj = self.lineEdit_bj.text()
h2 = float(h2)
tan = float(tan)
bj = float(bj)
ch = 0

a = 0.3

b = (h2 * 0.1) - a

list_b2 = []
x2 = 12
end_x2 = 10
for i in range(int(x2), int(end_x2), -1):
    b2 = h2 / i
    list_b2.append(b2)
b2 = min(list_b2)
print(list_b2)

start_x = 0.4

```

```

end_x = 0.7
step = 0.1

c_optimal = None

for x in range(int(start_x * 10), int(end_x * 10) + 1,
int(step * 10)):
    x = x / 10
    print("x = ", x)
    c = h2 * x
    d = h2 - b2

    h1 = (c - (a + b + (c / 3)))
    y_beton = 24
    wbt_1 = y_beton * c * b2

    wbt_2 = y_beton * a * d * 1
    wbt_3 = y_beton * b * 0.5 * d * 1
    jumlah_wbt = wbt_1 + wbt_2 + wbt_3
    wt = bj * h1 * d * 1
    jumlah_w = jumlah_wbt + wt
    rh = jumlah_w * (math.tan (2/3 * tan * math.pi / 180))

    ka = math.tan((45 - (tan/2)) * math.pi / 180) **2
    pa1 = h2 * bj * ka
    pa2 = 0.5 * pa1 * h2
    ph = pa2
    fgs = rh / ph

    mpa = pa2 * (h2 / 3)
    Lm1 = c / 2
    Lm2 = ((1/3) * c) + (a / 2) + 0.1
    Lm3 = (1/3) * c + ((2/3) * b)
    Lm4 = ((1/3) * c ) + a + b + (1.37 / 2)

    M1 = wbt_1 * Lm1
    M2 = wbt_2 * Lm2
    M3 = wbt_3 * Lm3
    M4 = wt * Lm4
    M_total = M1 + M2 + M3 + M4

    fgl = M_total / mpa

    Nc = 0
    Ny = 0
    Nq = 0
    if tan == 0:
        Nc = 5.7
        Ny = 0
        Nq = 1
    elif tan == 5:
        Nc = 7.3
        Ny = 0.5
        Nq = 1.6
    elif tan == 10:

```

```

Nc = 9.6
Ny = 1.2
Nq = 2.7
elif tan == 15:
    Nc = 12.9
    Ny = 2.5
    Nq = 4.4
elif tan == 20:
    Nc = 17.7
    Ny = 5
    Nq = 7.4
elif tan == 25:
    Nc = 25.1
    Ny = 9.7
    Nq = 12.7
elif tan == 30:
    Nc = 37.2
    Ny = 19.7
    Nq = 22.5
elif tan == 34:
    Nc = 52.6
    Ny = 35
    Nq = 36.5
elif tan == 35:
    Nc = 57.8
    Ny = 42.4
    Nq = 41.4
elif tan == 40:
    Nc = 95.7
    Ny = 100.4
    Nq = 81.3
elif tan == 45:
    Nc = 172.3
    Ny = 297.5
    Nq = 173.3
elif tan == 48:
    Nc = 258.3
    Ny = 780.1
    Nq = 287.9
elif tan == 50:
    Nc = 347.5
    Ny = 1153.2
    Nq = 415.1

e = (c / 2) - (M_total - mpa) / jumlah_w

B_aksen = c - (2 * e)

qu = ch * Nc + 0 * bj * Ny + 0.5 * B_aksen * bj * Nq
q = jumlah_w / c * (1 + 6 * e)
print("qu = ", qu)
print("q = ", q)
sf = qu / q

```



```

ka = math.tan((45 - (tan/2)) * math.pi / 180) **2
tebal_efektif = 300 - 75 - (0.5 * diameter)
Pbal = ((0.85 * 24 * 0.85) / 420) * (600 / (600 - 420))
pa = 0.5 * bj * ka * h2**2
Ma = pa * (h2 / 3)
Mu = (1.4 * Ma) * 1000000
AsMin = (1.4 / 420) * 1000 * tebal_efektif
AsMax = tebal_efektif * 1000 * Pbal
asb = 1/4 * 3.14 * diameter**2

n = 0
hasil = []

for i in range(10):
    As = asb * n + 1
    if As >= AsMin:
        hasil.append(n + 1)
    n += 1

# Ambil nilai n terkecil
n = min(hasil, default=0)
As = asb * n
a = (As * 420) / (0.85 * 24 * 1000)
Mn = (0.9 * (As * 420) * (tebal_efektif - (a / 2)))
SR = Mu / Mn
Smin = diameter + 25
s = (1000 - 2 * 75) / (n - 1)

if As < AsMin and As < AsMax and SR <= 1:
    closest_diameter = min(data_diameter, key=lambda x:
abs(x - diameter))
    diameter = closest_diameter

a = 0.35
tebal_dinding = a * 1000
AsMin_susut = 0.002 * tebal_dinding * 1000
Asperlu = AsMin_susut / 2
n_susut = Asperlu / (0.25 * 3.14 * diameter**2)
n_susut = math.ceil(n_susut)
s_susut = 1000 / n_susut

s = round(s, 3)
s_susut = round(s_susut, 3)

self.label_hasil_n_dinding.setText(str(n) + " bh")
self.label_hasil_d_dinding.setText(str(diameter) + " mm")
self.label_hasil_s_dinding.setText(str(s) + " mm")
self.label_hasil_n_kaki.setText(str(n) + " bh")
self.label_hasil_d_kaki.setText(str(diameter) + " mm")
self.label_hasil_s_kaki.setText(str(s) + " mm")
self.label_hasil_n_susut.setText(str(n_susut) + " bh")
self.label_hasil_d_susut.setText(str(diameter) + " mm")
self.label_hasil_s_susut.setText(str(s_susut) + " mm")

if diameter == 6:

```

```

        berat_besi = 0.221666667
elif diameter == 10:
    berat_besi = 0.616666667
elif diameter == 13:
    berat_besi = 1.041666667
elif diameter == 16:
    berat_besi = 1.583333333
elif diameter == 19:
    berat_besi = 2.23
elif diameter == 22:
    berat_besi = 2.984166667
elif diameter == 25:
    berat_besi = 3.853333333
elif diameter == 29:
    berat_besi = 5.19
elif diameter == 32:
    berat_besi = 6.313333333
elif diameter == 35:
    berat_besi = 7.5525
elif diameter == 38:
    berat_besi = 8.916666667
elif diameter == 41:
    berat_besi = 10.363333333

if pekerja_tulangan == "" or tukang_besi_tulangan == "" or
kepala_tukang_tulangan == "" or mandor_tulangan == "" or
besi_tulangan == "" or kawat_tulangan == "":
    msg = QtWidgets.QMessageBox()
    msg.setIcon(QtWidgets.QMessageBox.Critical)
    msg.setText("Harga perhitungan tulangan tidak boleh
kosong")
    msg.setWindowTitle("Error")
    msg.exec_()
else:
    pekerja_tulangan = float(pekerja_tulangan)
    tukang_besi_tulangan = float(tukang_besi_tulangan)
    kepala_tukang_tulangan = float(kepala_tukang_tulangan)
    mandor_tulangan = float(mandor_tulangan)
    besi_tulangan = float(besi_tulangan)
    kawat_tulangan = float(kawat_tulangan)

    pekerja_tulangan = pekerja_tulangan * 0.07
    tukang_besi_tulangan = tukang_besi_tulangan * 0.07
    kepala_tukang_tulangan = kepala_tukang_tulangan *
0.007

    mandor_tulangan = mandor_tulangan * 0.004
    besi_tulangan = besi_tulangan * 10.5
    kawat_tulangan = kawat_tulangan * 0.15

    total_sementara_tulangan = pekerja_tulangan +
tukang_besi_tulangan + kepala_tukang_tulangan + mandor_tulangan +
besi_tulangan + kawat_tulangan
    profit_tulangan = total_sementara_tulangan * 0.1

```

```

        total_tulangan = total_sementara_tulangan +
profit_tulangan

        volume_tulangan_dinding = berat_besi * n * 1* 2
        volume_tulangan_kaki = berat_besi * n * 1
        volume_tulangan_susut = (n_susut * d * 2 * berat_besi)
+ ((2*n_susut) * c * berat_besi)

        harga_tulangan_dinding = volume_tulangan_dinding *
total_tulangan * 2
        harga_tulangan_kaki = volume_tulangan_kaki *
total_tulangan
        harga_tulangan_susut = volume_tulangan_susut *
total_tulangan

        format_harga_tulangan_dinding =
"{:.2f}".format(harga_tulangan_dinding)
        format_harga_tulangan_kaki =
"{:.2f}".format(harga_tulangan_kaki)
        format_harga_tulangan_susut =
"{:.2f}".format(harga_tulangan_susut)

        self.label_harga_tulangan_dinding.setText("Rp. " +
str(format_harga_tulangan_dinding))
        self.label_harga_tulangan_kaki.setText("Rp. " +
str(format_harga_tulangan_kaki))
        self.label_harga_tulangan_susut.setText("Rp. " +
str(format_harga_tulangan_susut))

        print("hasil perhitungan harga pekerjaan tulangan")
        print("total harga satuan pekerjaan tulangan : " +
str(total_tulangan))
        print("volume tulangan dinding : " +
str(volume_tulangan_dinding))
        print("volume tulangan kaki : " +
str(volume_tulangan_kaki))
        print("volume tulangan susut : " +
str(volume_tulangan_susut))
        print("harga tulangan dinding : " +
str(format_harga_tulangan_dinding))
        print("harga tulangan kaki : " +
str(format_harga_tulangan_kaki))
        print("harga tulangan susut : " +
str(format_harga_tulangan_susut))

        #hitung harga bekesting
pekerja_bekesting = self.lineEdit_pekerja_bekesting.text()
tukang_kayu_bekesting =
self.lineEdit_tukang_kayu_bekesting.text()
kepala_tukang_bekesting =
self.lineEdit_kepala_tukang_bekesting.text()
mandor_bekesting = self.lineEdit_mandor_bekesting.text()
papan_bekesting = self.lineEdit_papan_bekesting.text()
paku_bekesting = self.lineEdit_paku_bekesting.text()
minyak_bekesting = self.lineEdit_minyak_bekesting.text()

```

```

balok_bekesting = self.lineEdit_balok_bekesting.text()
plywood_bekesting = self.lineEdit_plywood_bekesting.text()
dolken_bekesting = self.lineEdit_dolken_bekesting.text()
penjaga_jarak_bekesting =
self.lineEdit_penjaga_jarak_bekesting.text()

    if pekerja_bekesting == "" or tukang_kayu_bekesting == ""
or kepala_tukang_bekesting == "" or mandor_bekesting == "" or
papan_bekesting == "" or paku_bekesting == "" or minyak_bekesting
== "" or balok_bekesting == "" or plywood_bekesting == "" or
dolken_bekesting == "" or penjaga_jarak_bekesting == "":
    msg = QtWidgets.QMessageBox()
    msg.setIcon(QtWidgets.QMessageBox.Critical)
    msg.setText("Harga perhitungan bekesting tidak boleh
kosong")
    msg.setWindowTitle("Error")
    msg.exec_()
else:
    pekerja_bekesting = float(pekerja_bekesting)
    tukang_kayu_bekesting = float(tukang_kayu_bekesting)
    kepala_tukang_bekesting =
float(kepala_tukang_bekesting)
    mandor_bekesting = float(mandor_bekesting)
    papan_bekesting = float(papan_bekesting)
    paku_bekesting = float(paku_bekesting)
    minyak_bekesting = float(minyak_bekesting)
    balok_bekesting = float(balok_bekesting)
    plywood_bekesting = float(plywood_bekesting)
    dolken_bekesting = float(dolken_bekesting)
    penjaga_jarak_bekesting =
float(penjaga_jarak_bekesting)

    pekerja_bekesting = pekerja_bekesting * 0.66
    tukang_kayu_bekesting = tukang_kayu_bekesting * 0.33
    kepala_tukang_bekesting = kepala_tukang_bekesting *
0.033
    mandor_bekesting = mandor_bekesting * 0.033
    papan_bekesting = papan_bekesting * 0.03
    paku_bekesting = paku_bekesting * 0.4
    minyak_bekesting = minyak_bekesting * 0.2
    balok_bekesting = balok_bekesting * 0.02
    plywood_bekesting = plywood_bekesting * 0.35
    dolken_bekesting = dolken_bekesting * 3
    penjaga_jarak_bekesting = penjaga_jarak_bekesting * 4

    total_sementara_bekesting = pekerja_bekesting +
tukang_kayu_bekesting + kepala_tukang_bekesting + mandor_bekesting
+ papan_bekesting + paku_bekesting + minyak_bekesting +
balok_bekesting + plywood_bekesting + dolken_bekesting +
penjaga_jarak_bekesting
    profit_bekesting = total_sementara_bekesting * 0.1
    total_bekesting = (total_sementara_bekesting +
profit_bekesting)/2

```

```

        volume_bekisting_dinding = ((d * 2 * 1) + ((a + a +
b)/2) * d * 2))
        volume_bekisting_kaki = (c * b2 * 2)+(b2 * 2 * 1)
        harga_bekisting_dinding = volume_bekisting_dinding *
total_bekesting
        harga_bekisting_kaki = volume_bekisting_kaki *
total_bekesting
        format_harga_bekisting_dinding =
"{:,.2f}".format(harga_bekisting_dinding)
        format_harga_bekisting_kaki =
"{:,.2f}".format(harga_bekisting_kaki)
        self.label_harga_bekisting_dinding.setText("Rp. " +
str(format_harga_bekisting_dinding))
        self.label_harga_bekisting_kaki.setText("Rp. " +
str(format_harga_bekisting_kaki))

        print("hasil perhitungan harga bekesting")
        print("total harga satuan pekerjaan bekesting : " +
str(total_bekesting))
        print("volume bekisting dinding : " +
str(volume_bekisting_dinding))
        print("volume bekisting kaki : " +
str(volume_bekisting_kaki))
        print("harga bekisting dinding : " +
str(harga_bekisting_dinding))
        print("harga bekisting kaki : " +
str(harga_bekisting_kaki))

    def reset(self):
        self.lineEdit_h2.setText("")
        self.lineEdit_tan.setText("")
        self.lineEdit_bj.setText("")
        self.lineEdit_pekerja_beton.setText("")
        self.lineEdit_tukang_batu_beton.setText("")
        self.lineEdit_kepala_tukang_beton.setText("")
        self.lineEdit_mandor_beton.setText("")
        self.lineEdit_semen_beton.setText("")
        self.lineEdit_pasir_beton.setText("")
        self.lineEdit_koral_beton.setText("")
        self.lineEdit_air_beton.setText("")
        self.lineEdit_pekerja_tulangan.setText("")
        self.lineEdit_tukang_besi_tulangan.setText("")
        self.lineEdit_kepala_tukang_tulangan.setText("")
        self.lineEdit_mandor_tulangan.setText("")
        self.lineEdit_besi_tulangan.setText("")
        self.lineEdit_kawat_tulangan.setText("")
        self.lineEdit_pekerja_bekesting.setText("")
        self.lineEdit_tukang_kayu_bekesting.setText("")
        self.lineEdit_kepala_tukang_bekesting.setText("")
        self.lineEdit_mandor_bekesting.setText("")
        self.lineEdit_papan_bekesting.setText("")
        self.lineEdit_paku_bekesting.setText("")
        self.lineEdit_minyak_bekesting.setText("")
        self.lineEdit_balok_bekesting.setText("")
        self.lineEdit_plywood_bekesting.setText("")

```

```

self.lineEdit_dolken_bekesting.setText("")
self.lineEdit_penjaga_jarak_bekesting.setText("")
self.lineEdit_diameter.setText("")
self.lineEdit_pekerja_beton.setText("")
self.lineEdit_tukang_batu_beton.setText("")
self.lineEdit_kepala_tukang_beton.setText("")
self.lineEdit_mandor_beton.setText("")
self.lineEdit_semen_beton.setText("")
self.lineEdit_pasir_beton.setText("")
self.lineEdit_koral_beton.setText("")
self.lineEdit_air_beton.setText("")
self.lineEdit_pekerja_tulangan.setText("")
self.lineEdit_tukang_besi_tulangan.setText("")
self.lineEdit_kepala_tukang_tulangan.setText("")
self.lineEdit_mandor_tulangan.setText("")
self.lineEdit_besi_tulangan.setText("")
self.lineEdit_kawat_tulangan.setText("")
self.lineEdit_pekerja_bekesting.setText("")
self.lineEdit_tukang_kayu_bekesting.setText("")
self.lineEdit_kepala_tukang_bekesting.setText("")
self.lineEdit_mandor_bekesting.setText("")
self.lineEdit_papan_bekesting.setText("")
self.lineEdit_paku_bekesting.setText("")
self.lineEdit_minyak_bekesting.setText("")
self.lineEdit_balok_bekesting.setText("")
self.lineEdit_plywood_bekesting.setText("")
self.lineEdit_dolken_bekesting.setText("")
self.lineEdit_penjaga_jarak_bekesting.setText("")
self.label_harga_beton.setText("Rp. 0")
self.label_harga_tulangan_dinding.setText("Rp. 0")
self.label_harga_tulangan_kaki.setText("Rp. 0")
self.label_harga_tulangan_susut.setText("Rp. 0")
self.label_harga_bekisting_dinding.setText("Rp. 0")
self.label_harga_bekisting_kaki.setText("Rp. 0")
self.label_hasil_n_dinding.setText("0")
self.label_hasil_d_dinding.setText("0")
self.label_hasil_s_dinding.setText("0")
self.label_hasil_n_kaki.setText("0")
self.label_hasil_d_kaki.setText("0")
self.label_hasil_s_kaki.setText("0")
self.label_hasil_n_susut.setText("0")
self.label_hasil_d_susut.setText("0")
self.label_hasil_s_susut.setText("0")
self.label_hasil_fgs.setText("= 0")
self.label_hasil_fgl.setText("= 0")
self.label_hasil_sf.setText("= 0")
self.label_hasil_a.setText("0")
self.label_hasil_b.setText("0")
self.label_hasil_b2.setText("0")
self.label_hasil_c.setText("0")
self.label_hasil_d.setText("0")
self.label_hasil_h1.setText("0")

```

```

def retranslateUi(self, MainWindow):
    _translate = QtCore.QCoreApplication.translate
    MainWindow.setWindowTitle(_translate("MainWindow",
"MainWindow"))
    self.label_satuan_bj.setText(_translate("MainWindow",
"kN/m3"))
    self.label_bj.setText(_translate("MainWindow", "γ :"))
    self.label_tan.setText(_translate("MainWindow", "∅ :"))
    self.label_satuan_tan.setText(_translate("MainWindow",
"°"))
    self.label_h2.setText(_translate("MainWindow", "H :"))
    self.label_satuan_h2.setText(_translate("MainWindow",
"m"))
    self.btn_reset.setText(_translate("MainWindow", "Reset"))
    self.btn_hitung.setText(_translate("MainWindow",
"Hitung"))
    self.label_stabilitas.setText(_translate("MainWindow",
"Stabilitas"))
    self.label_fgs.setText(_translate("MainWindow", "Control
Fgs"))
    self.label_hasil_fgs.setText(_translate("MainWindow", "=
"))
    self.label_fgl.setText(_translate("MainWindow", "Control
Fgl"))
    self.label_hasil_fgl.setText(_translate("MainWindow", "=
"))
    self.label_sf.setText(_translate("MainWindow", "Control
sf"))
    self.label_hasil_sf.setText(_translate("MainWindow", "=
"))
    self.label_a.setText(_translate("MainWindow", "a ="))
    self.label_hasil_a.setText(_translate("MainWindow", "0"))
    self.label_b.setText(_translate("MainWindow", "b ="))
    self.label_hasil_b.setText(_translate("MainWindow", "0"))
    self.label_b2.setText(_translate("MainWindow", "b2 ="))
    self.label_hasil_b2.setText(_translate("MainWindow", "0"))
    self.label_c.setText(_translate("MainWindow", "c ="))
    self.label_hasil_c.setText(_translate("MainWindow", "0"))
    self.label_d.setText(_translate("MainWindow", "d ="))
    self.label_hasil_d.setText(_translate("MainWindow", "0"))
    self.label_h1.setText(_translate("MainWindow", "h1 ="))
    self.label_hasil_h1.setText(_translate("MainWindow", "0"))
    self.label_judul_hasil.setText(_translate("MainWindow",
"Hasil"))

self.label_perhitungan_tulangan.setText(_translate("MainWindow",
"Pehitungan Tulangan"))
    self.label_diameter.setText(_translate("MainWindow",
"diameter :"))

self.label_satuan_diameter.setText(_translate("MainWindow", "m"))

```

```

        self.btn_hitung_tulangan.setText(_translate("MainWindow",
"Hitung"))

self.label_judul_tulangan_dinding.setText(_translate("MainWindow",
"Hasil Tulangan Dinding"))
        self.label_tulangan_kaki.setText(_translate("MainWindow",
"Hasil Tulangan Kaki"))

self.label_judul_tulangan_susut.setText(_translate("MainWindow",
"Hasil Tulangan Susut"))

self.label_hasil_n_dinding.setText(_translate("MainWindow", "0"))
        self.label_n_dinding.setText(_translate("MainWindow", "n
="))

self.label_hasil_d_dinding.setText(_translate("MainWindow", "0"))
        self.label_d_dinding.setText(_translate("MainWindow", "d
="))

self.label_hasil_s_dinding.setText(_translate("MainWindow", "0"))
        self.label_s_dinding.setText(_translate("MainWindow", "s
="))
        self.label_hasil_n_kaki.setText(_translate("MainWindow",
"0"))
        self.label_hasil_d_kaki.setText(_translate("MainWindow",
"0"))
        self.label_n_kaki.setText(_translate("MainWindow", "n ="))
        self.label_s_kaki.setText(_translate("MainWindow", "s ="))
        self.label_d_kaki.setText(_translate("MainWindow", "d ="))
        self.label_hasil_s_kaki.setText(_translate("MainWindow",
"0"))
        self.label_s_susut.setText(_translate("MainWindow", "s
="))
        self.label_d_susut.setText(_translate("MainWindow", "d
="))
        self.label_hasil_d_susut.setText(_translate("MainWindow",
"0"))
        self.label_hasil_s_susut.setText(_translate("MainWindow",
"0"))
        self.label_hasil_n_susut.setText(_translate("MainWindow",
"0"))
        self.label_n_susut.setText(_translate("MainWindow", "n
="))
        self.label_judul_harga.setText(_translate("MainWindow",
"Harga"))
        self.label_judul_beton.setText(_translate("MainWindow",
"Pekerjaan Beton"))
        self.label_judul_dinding.setText(_translate("MainWindow",
"Pekerjaan tulangan dinding"))
        self.label_judul_kaki.setText(_translate("MainWindow",
"Pekerjaan tulangan kaki"))
        self.label_judul_susut.setText(_translate("MainWindow",
"Pekerjaan tulangan susut"))

```



```

self.label_bekisting_dinding.setText(_translate("MainWindow",
"Pekerjaan Bekisting dinding"))
    self.label_bekisting_kaki.setText(_translate("MainWindow",
"Pekerjaan Bekisting kaki"))
    self.label_harga_beton.setText(_translate("MainWindow",
"Rp. 0"))

self.label_harga_tulangan_dinding.setText(_translate("MainWindow",
"Rp. 0"))

self.label_harga_tulangan_kaki.setText(_translate("MainWindow",
"Rp. 0"))

self.label_harga_tulangan_susut.setText(_translate("MainWindow",
"Rp. 0"))

self.label_harga_bekisting_dinding.setText(_translate("MainWindow"
, "Rp. 0"))

self.label_harga_bekisting_kaki.setText(_translate("MainWindow",
"Rp. 0"))
    self.label_satuan_harga.setText(_translate("MainWindow",
"Satuan Harga"))

self.label_judul_harga_beton.setText(_translate("MainWindow",
"Pekerjaan Beton"))
    self.label_pekerja_beton.setText(_translate("MainWindow",
"Pekerja"))

self.label_tukang_batu_beton.setText(_translate("MainWindow",
"Tukang Batu"))

self.label_kepala_tukang_beton.setText(_translate("MainWindow",
"Kepala Tukang"))
    self.label_mandor_beton.setText(_translate("MainWindow",
"Mandor"))
    self.label_semen_beton.setText(_translate("MainWindow",
"Semen Portland"))
    self.label_pasir_beton.setText(_translate("MainWindow",
"Pasir Beton"))
    self.label_koral_beton.setText(_translate("MainWindow",
"Koral ex Palu Max 30 mm"))
    self.label_air_beton.setText(_translate("MainWindow",
"Air"))

self.label_pekerja_tulangan.setText(_translate("MainWindow",
"Pekerja"))

self.label_tukang_besi_tulangan.setText(_translate("MainWindow",
"Tukang Besi"))

self.label_kepala_tukang_tulangan.setText(_translate("MainWindow",
"Kepala Tukang"))

```

```

self.label_mandor_tulangan.setText(_translate("MainWindow",
"Mandor"))
    self.label_besi_tulangan.setText(_translate("MainWindow",
"Besi beton (ulir) "))
    self.label_kawat_tulangan.setText(_translate("MainWindow",
"Kawat Bendrat"))

self.label_judul_harga_tulangan.setText(_translate("MainWindow",
"Pekerjaan Tulangan"))

self.label_judul_harga_bekesting.setText(_translate("MainWindow",
"Pekerjaan Bekesting"))

self.label_pekerja_bekesting.setText(_translate("MainWindow",
"Pekerja"))

self.label_tukang_kayu_bekesting.setText(_translate("MainWindow",
"Tukang Kayu"))

self.label_kepala_tukang_bekesting.setText(_translate("MainWindow",
, "Kepala Tukang"))

self.label_mandor_bekesting.setText(_translate("MainWindow",
"Mandor"))

self.label_papan_bekesting.setText(_translate("MainWindow", "Papan
2/20 Kayu Meranti "))
    self.label_paku_bekesting.setText(_translate("MainWindow",
"Paku"))

self.label_minyak_bekesting.setText(_translate("MainWindow",
"Minyak Bekesting"))

self.label_balok_bekesting.setText(_translate("MainWindow", "Balok
5/7 Kayu Meranti"))

self.label_plywood_bekesting.setText(_translate("MainWindow",
"Plywood Tebal 9 mm"))

self.label_dolken_bekesting.setText(_translate("MainWindow",
"Dolken Kayu Ø 8-10cm Panjang 4m"))

self.label_penjaga_jarak_bekesting.setText(_translate("MainWindow",
, "Penjaga Jarak Bekesting/Spacer"))

self.pushButton_hitung_harga.setText(_translate("MainWindow",
"Hitung Harga"))

if __name__ == "__main__":
    import sys
    app = QtWidgets.QApplication(sys.argv)
    MainWindow = QtWidgets.QMainWindow()
    ui = Ui_MainWindow()

```

```
ui.setupUi(MainWindow)  
MainWindow.show()  
sys.exit(app.exec_())
```

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