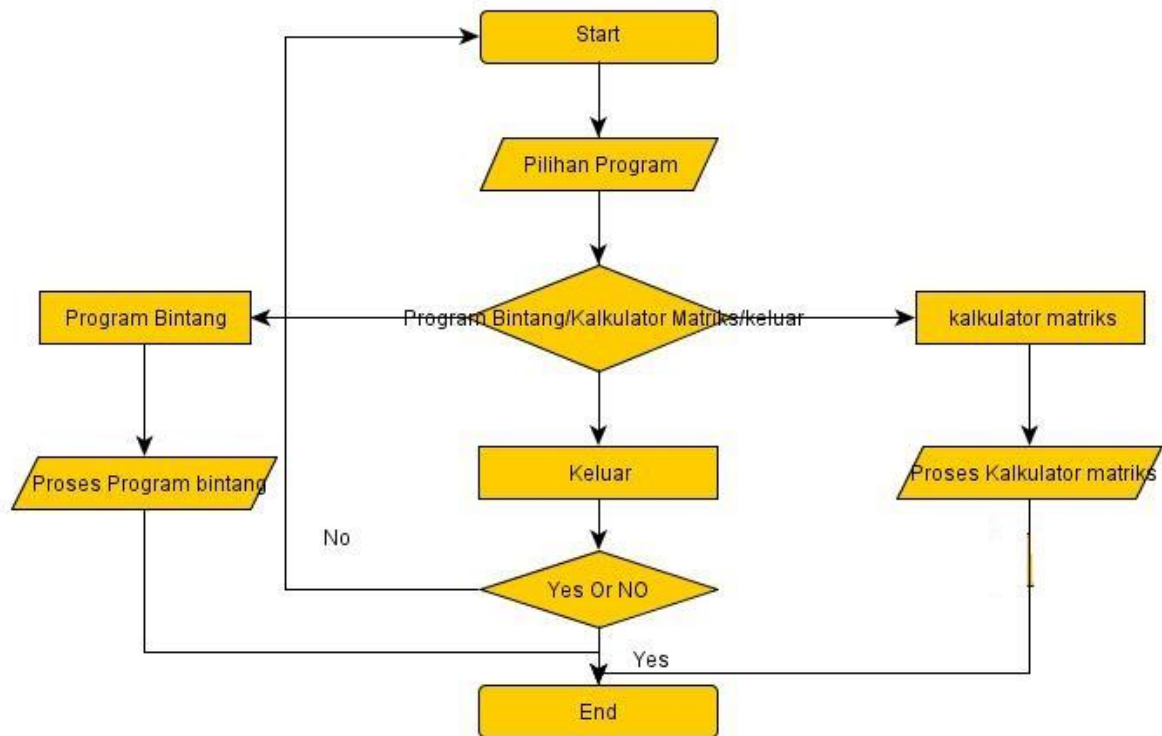
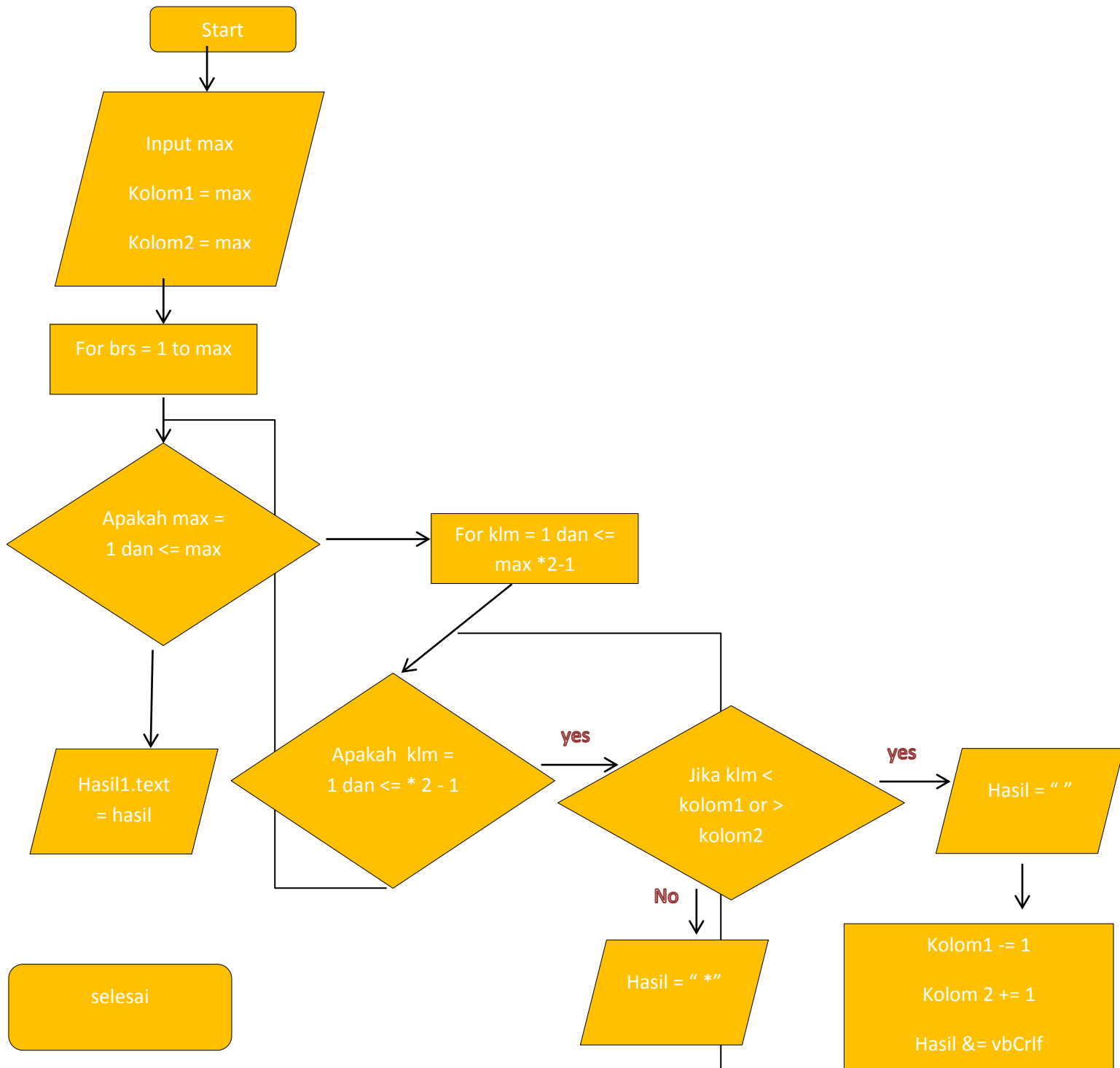


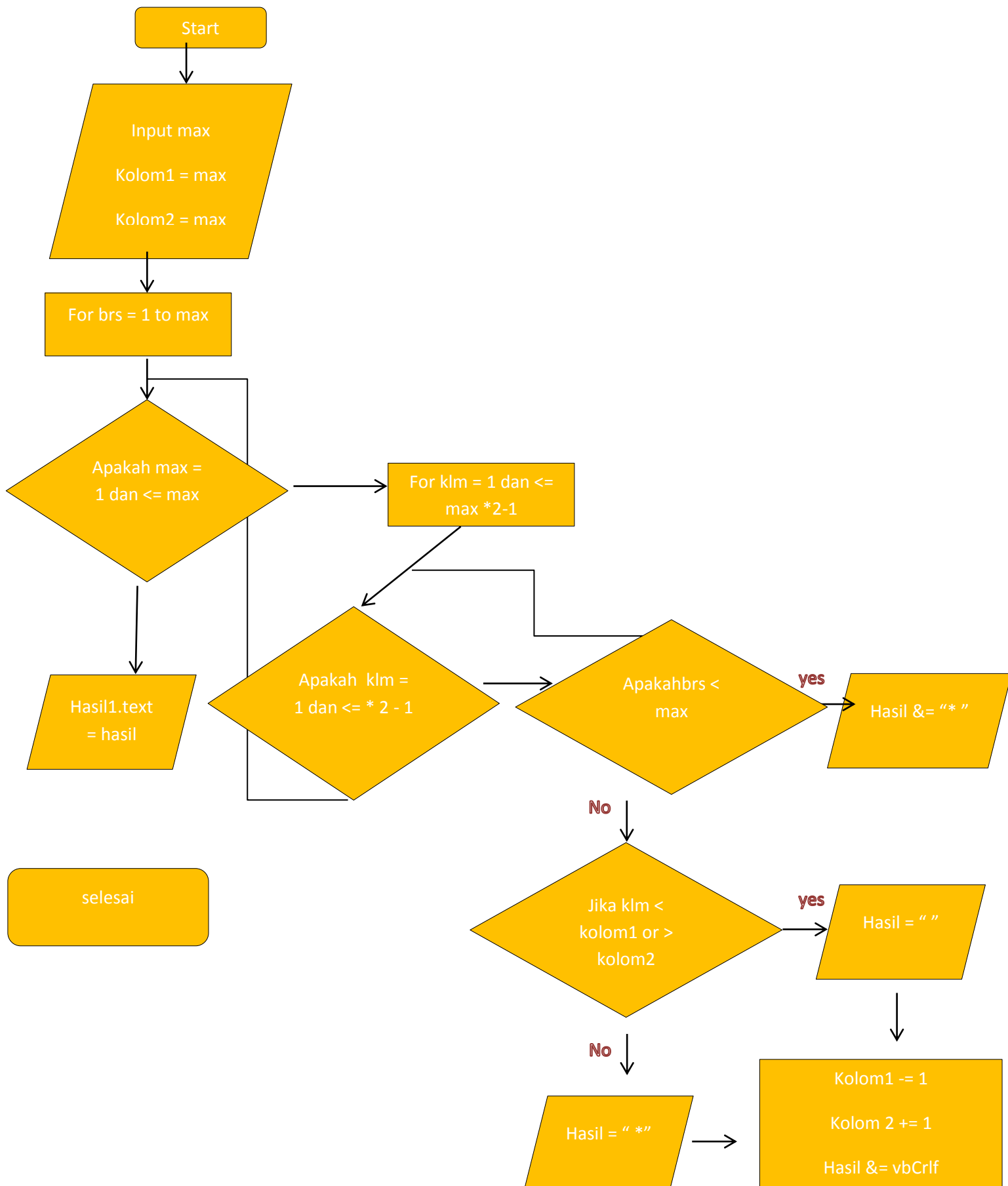
1. Form 1



1. Pyramid

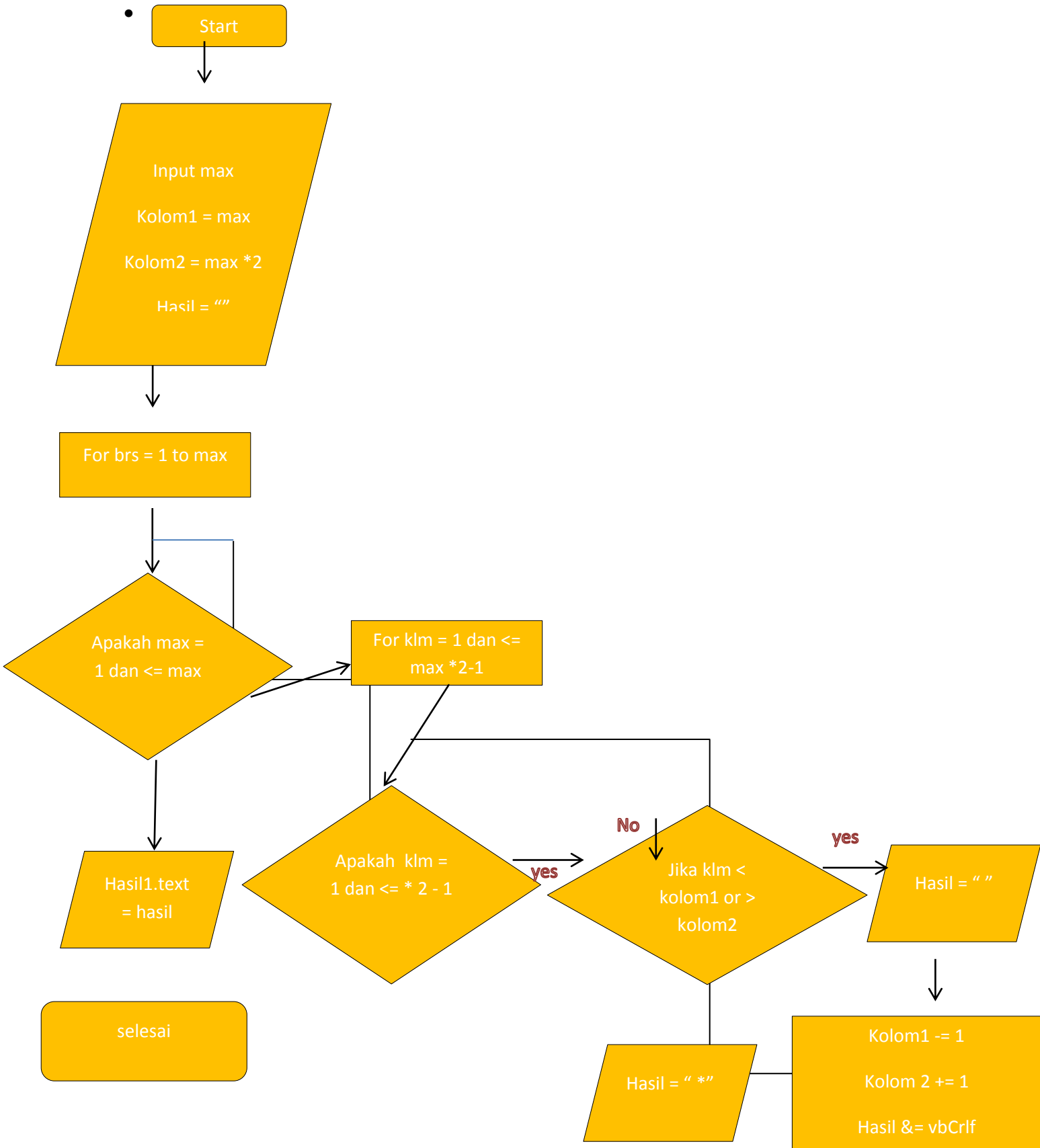


2. Hollow Pyramid

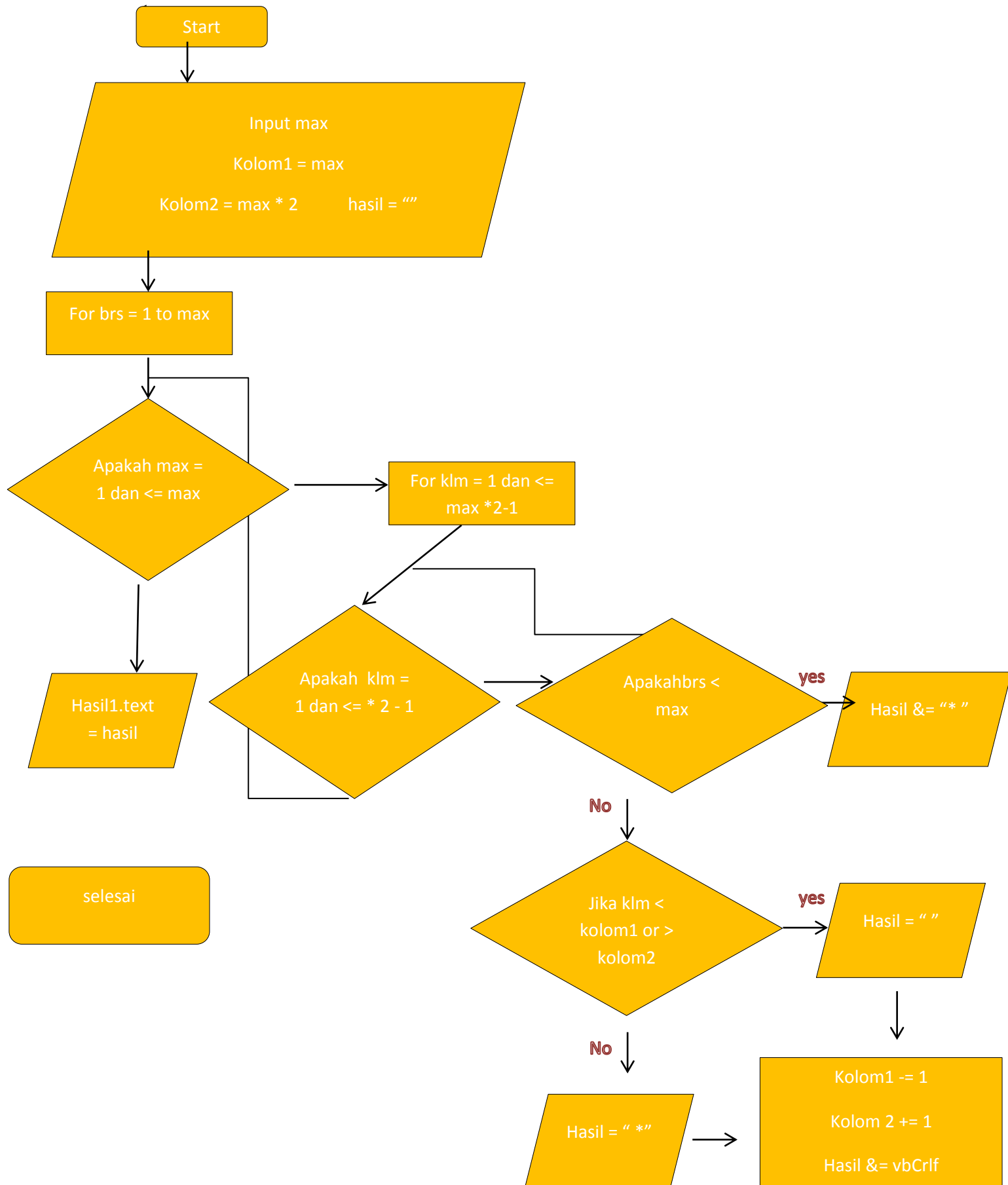


3. Inverted Pyramid

-

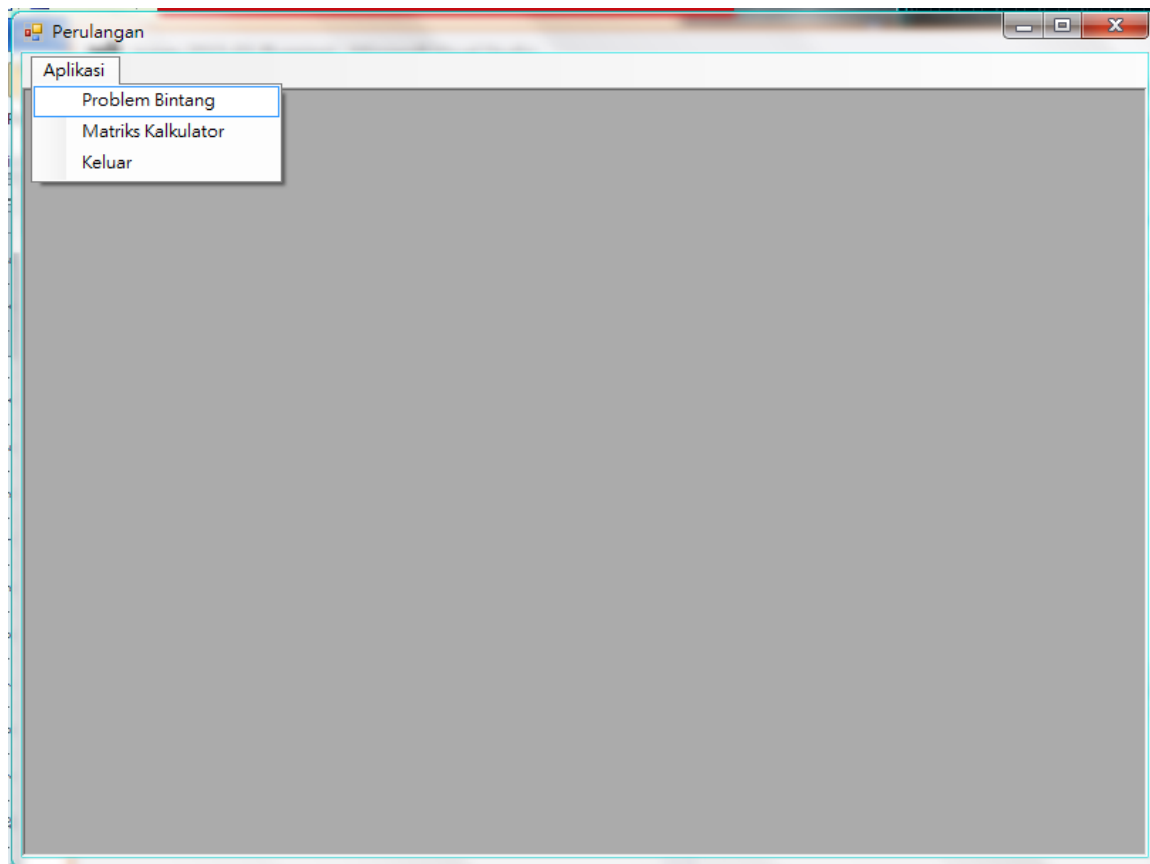


4. Inverted Hollow Pyramid

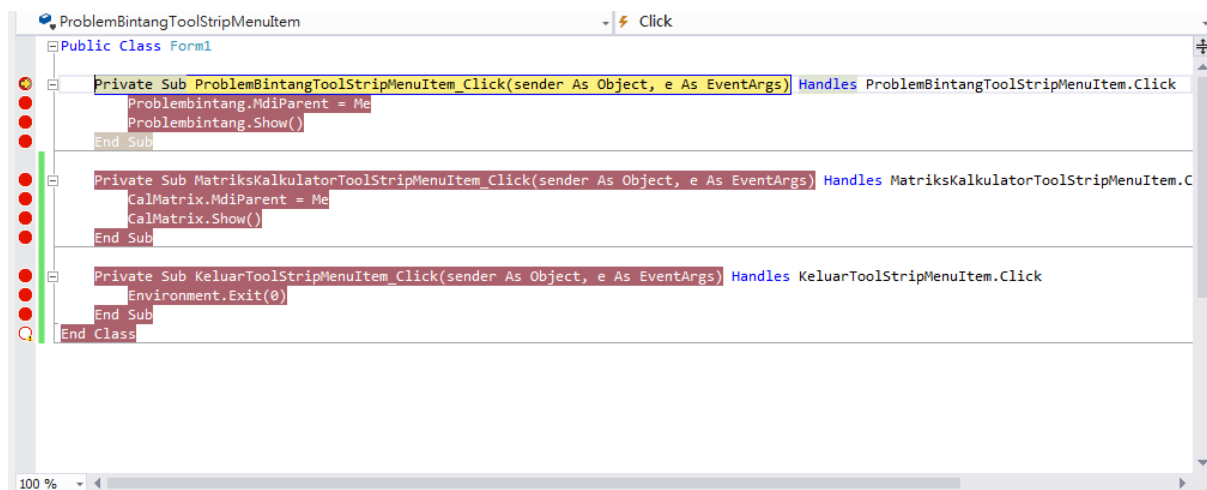


Problem Bintang

1. Membuka aplikasi



2. Membaca sub ProblemBintangStripMenuItem_Click



3. Membuka ProblemBintang dari form1

```

ProblemBintangToolStripMenuItem
Click

Public Class Form1

Private Sub ProblemBintangToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles ProblemBintangToolStripMenuItem.Click
    ProblemBintang.MdiParent = Me
    ProblemBintang.Show()
End Sub

Private Sub MatriksKalkulatorToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles MatriksKalkulatorToolStripMenuItem.C
    CalMatrix.MdiParent = Me
    CalMatrix.Show()
End Sub

Private Sub KeluarToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles KeluarToolStripMenuItem.Click
    Environment.Exit(0)
End Sub

End Class

```

4. Membaca Dim hasil As String = ""

```

Public Class ProblemBintang
    Dim hasil As String = ""

Private Sub Sub1_Click(sender As Object, e As EventArgs) Handles Sub1.Click
    Try
        Select Case polacombol.Text
            Case "Pyramid"
                pyramid(enter1.Text)
            Case "Hollow Pyramid"
                hollowPyramid(enter1.Text)
            Case "Inverted Pyramid"
                invertedPyramid(enter1.Text)
            Case "Hollow Inverted Pyramid"
                hollowInvertedPyramid(enter1.Text)
        End Select
    Catch ex As Exception
    End Try
End Sub

Private Sub pyramid(max As Integer)
    Dim kolom1 As Integer = max
    Dim kolom2 As Integer = max

```

5. Menampilkan ProblemBintang

```

Public Class Form1

Private Sub ProblemBintangToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles ProblemBintangToolStripMenuItem.Click
    ProblemBintang.MdiParent = Me
    ProblemBintang.Show()
End Sub

Private Sub MatriksKalkulatorToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles MatriksKalkulatorToolStripMenuItem.C
    CalMatrix.MdiParent = Me
    CalMatrix.Show()
End Sub

Private Sub KeluarToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles KeluarToolStripMenuItem.Click
    Environment.Exit(0)
End Sub

End Class

```

6. Sub ProblemBintang telah di tampilkan

```
ProblemBintangToolStripMenuItem
Click

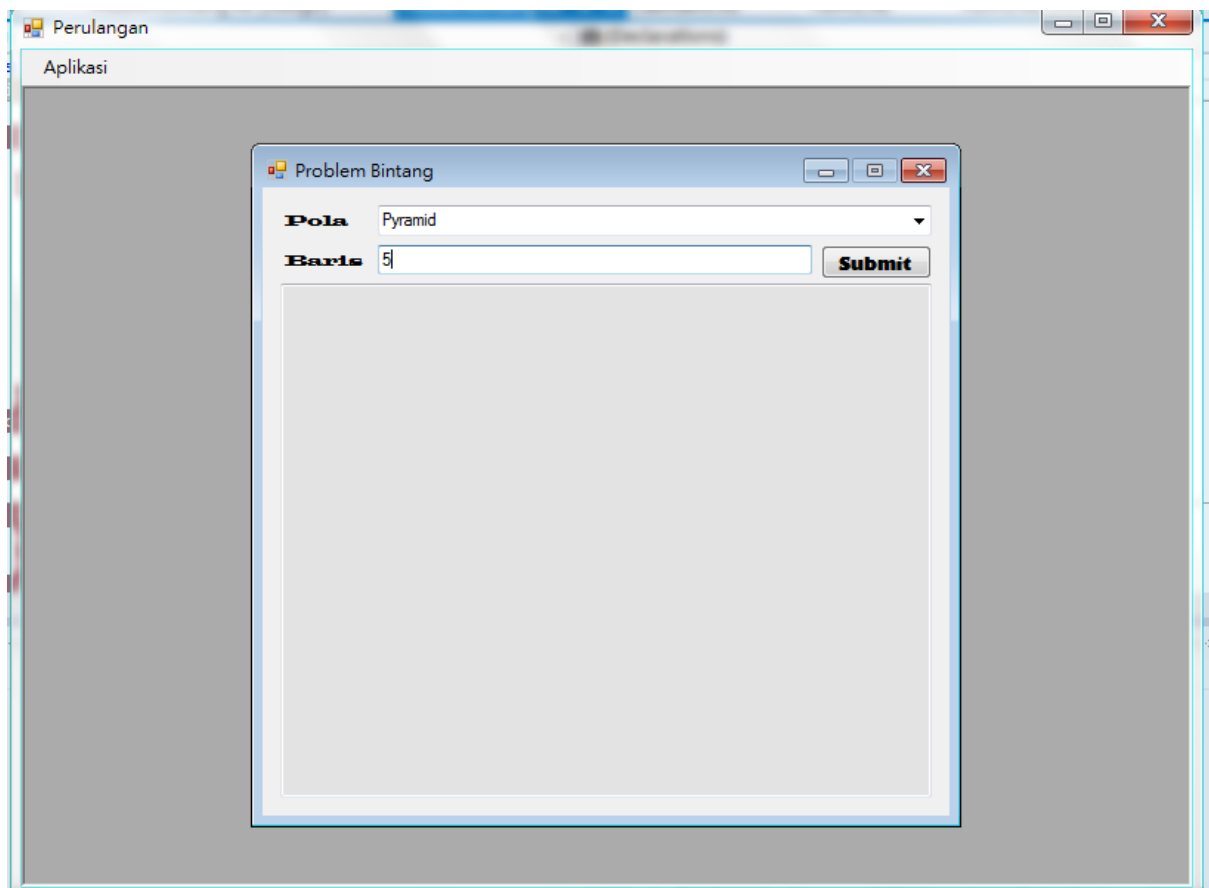
Public Class Form1

Private Sub ProblemBintangToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles ProblemBintangToolStripMenuItem.Click
    ProblemBintang.MdiParent = Me
    ProblemBintang.Show()
End Sub

Private Sub MatriksKalkulatorToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles MatriksKalkulatorToolStripMenuItem.C
    CalMatrix.MdiParent = Me
    CalMatrix.Show()
End Sub

Private Sub KeluarToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles KeluarToolStripMenuItem.Click
    Environment.Exit(0)
End Sub
End Class
```

7. Tampilan ProblemBintang, pilih pola dan masukan baris pada textbox, lalu klik Submit



8. Submit akan memanggil Private Sub Sub1_click


```

Public Class Problembintang
    Dim hasil As String = ""

    Private Sub Sub1_Click(sender As Object, e As EventArgs) Handles Sub1.Click
        Try
            Select Case polacombol1.Text
                Case "Pyramid"
                    pyramid(enter1.Text)
                Case "Hollow Pyramid"
                    hollowPyramid(enter1.Text)
                Case "Inverted Pyramid"
                    invertedPyramid(enter1.Text)
                Case "Hollow Inverted Pyramid"
                    hollowInvertedPyramid(enter1.Text)
            End Select
        Catch ex As Exception
        End Try
    End Sub

    Private Sub pyramid(max As Integer)
        Dim kolom1 As Integer = max
        Dim kolom2 As Integer = max
        For hrs As Integer = 1 To max

```

9. Membaca Try apakah ada kesalahan atau tidak jika ada kesalahan akan memblock

```

Sub1 Click
Public Class Problembintang
    Dim hasil As String = ""

    Private Sub Sub1_Click(sender As Object, e As EventArgs) Handles Sub1.Click
        Try
            Select Case polacombol1.Text
                Case "Pyramid"
                    pyramid(enter1.Text)
                Case "Hollow Pyramid"
                    hollowPyramid(enter1.Text)
                Case "Inverted Pyramid"
                    invertedPyramid(enter1.Text)
                Case "Hollow Inverted Pyramid"
                    hollowInvertedPyramid(enter1.Text)
            End Select
        Catch ex As Exception
        End Try
    End Sub

    Private Sub pyramid(max As Integer)
        Dim kolom1 As Integer = max
        Dim kolom2 As Integer = max
        For hrs As Integer = 1 To max

```

10. Membaca select case dari polacombol1.text

```

Sub1 Click
Public Class Problembintang
    Dim hasil As String = ""

    Private Sub Sub1_Click(sender As Object, e As EventArgs) Handles Sub1.Click
        Try
            Select Case polacombol1.Text
                Case "Pyramid"
                    pyramid(enter1.Text)
                Case "Hollow Pyramid"
                    hollowPyramid(enter1.Text)
                Case "Inverted Pyramid"
                    invertedPyramid(enter1.Text)
                Case "Hollow Inverted Pyramid"
                    hollowInvertedPyramid(enter1.Text)
            End Select
        Catch ex As Exception
        End Try
    End Sub

    Private Sub pyramid(max As Integer)
        Dim kolom1 As Integer = max
        Dim kolom2 As Integer = max
        For hrs As Integer = 1 To max

```

11. Membaca case yang di pilih

```

Public Class Problembintang
    Dim hasil As String = ""

    Private Sub Sub1_Click(sender As Object, e As EventArgs) Handles Sub1.Click
        Try
            Select Case polacombol1.Text
                Case "Pyramid"
                    pyramid(enter1.Text)
                Case "Hollow Pyramid"
                    hollowPyramid(enter1.Text)
                Case "Inverted Pyramid"
                    invertedPyramid(enter1.Text)
                Case "Hollow Inverted Pyramid"
                    hollowInvertedPyramid(enter1.Text)
            End Select
        Catch ex As Exception
        End Try
    End Sub

    Private Sub pyramid(max As Integer)
        Dim kolom1 As Integer = max
        Dim kolom2 As Integer = max
        For brs As Integer = 1 To max

```

12. Pyramid membaca yang angka yang di masukan di enter1.text

```

Sub1 Click
Public Class Problembintang
    Dim hasil As String = ""

    Private Sub Sub1_Click(sender As Object, e As EventArgs) Handles Sub1.Click
        Try
            Select Case polacombol1.Text
                Case "Pyramid"
                    pyramid(enter1.Text)
                Case "Hollow Pyramid"
                    hollowPyramid(enter1.Text)
                Case "Inverted Pyramid"
                    invertedPyramid(enter1.Text)
                Case "Hollow Inverted Pyramid"
                    hollowInvertedPyramid(enter1.Text)
            End Select
        Catch ex As Exception
        End Try
    End Sub

    Private Sub pyramid(max As Integer)
        Dim kolom1 As Integer = max
        Dim kolom2 As Integer = max
        For brs As Integer = 1 To max

```

13. Memanggil private sub pyramid

```

                Case "Pyramid"
                    pyramid(enter1.Text)
                Case "Hollow Pyramid"
                    hollowPyramid(enter1.Text)
                Case "Inverted Pyramid"
                    invertedPyramid(enter1.Text)
                Case "Hollow Inverted Pyramid"
                    hollowInvertedPyramid(enter1.Text)
            End Select
        Catch ex As Exception
        End Try
    End Sub

    Private Sub pyramid(max As Integer)
        Dim kolom1 As Integer = max
        Dim kolom2 As Integer = max
        For brs As Integer = 1 To max
            For klm As Integer = 1 To max * 2 - 1
                If (klm < kolom1 Or klm > kolom2) Then
                    Me.hasil &= " "
                Else
                    Me.hasil &= "*"
                End If
            Next klm
        Next brs
    End Sub

```

14. Membaca atribut kolom1 dari sub pyramid

```
Problem bintang - pyramid
Case "Pyramid"
    pyramid(enter1.Text)
Case "Hollow Pyramid"
    hollowPyramid(enter1.Text)
Case "Inverted Pyramid"
    invertedPyramid(enter1.Text)
Case "Hollow Inverted Pyramid"
    hollowInvertedPyramid(enter1.Text)
End Select
Catch ex As Exception
End Try
End Sub
Private Sub pyramid(max As Integer)
    Dim kolom1 As Integer = max
    Dim kolom2 As Integer = max
    For brs As Integer = 1 To max
        For klm As Integer = 1 To max * 2 - 1
            If (klm < kolom1 Or klm > kolom2) Then
                Me.hasil &= " "
            Else
                Me.hasil &= "*"
            End If
        
```

15. Membaca atribut kolom2 dari sub pyramid

```
Problem bintang - pyramid
Case "Pyramid"
    pyramid(enter1.Text)
Case "Hollow Pyramid"
    hollowPyramid(enter1.Text)
Case "Inverted Pyramid"
    invertedPyramid(enter1.Text)
Case "Hollow Inverted Pyramid"
    hollowInvertedPyramid(enter1.Text)
End Select
Catch ex As Exception
End Try
End Sub
Private Sub pyramid(max As Integer)
    Dim kolom1 As Integer = max
    Dim kolom2 As Integer = max
    For brs As Integer = 1 To max
        For klm As Integer = 1 To max * 2 - 1
            If (klm < kolom1 Or klm > kolom2) Then
                Me.hasil &= " "
            Else
                Me.hasil &= "*"
            End If
        
```

16. Melakukan perulangan for brs as integer = 1 to max

```
Problem bintang - pyramid
Case "Pyramid"
    pyramid(enter1.Text)
Case "Hollow Pyramid"
    hollowPyramid(enter1.Text)
Case "Inverted Pyramid"
    invertedPyramid(enter1.Text)
Case "Hollow Inverted Pyramid"
    hollowInvertedPyramid(enter1.Text)
End Select
Catch ex As Exception
End Try
End Sub
Private Sub pyramid(max As Integer)
    Dim kolom1 As Integer = max
    Dim kolom2 As Integer = max
    For brs As Integer = 1 To max
        For klm As Integer = 1 To max * 2 - 1
            If (klm < kolom1 Or klm > kolom2) Then
                Me.hasil &= " "
            Else
                Me.hasil &= "*"
            End If
        
```

17. Melakukan perulangan for klm as integer = 1 to max * 2 - 1

```

        Case "Pyramid"
            pyramid(enter1.Text)
        Case "Hollow Pyramid"
            hollowPyramid(enter1.Text)
        Case "Inverted Pyramid"
            invertedPyramid(enter1.Text)
        Case "Hollow Inverted Pyramid"
            hollowInvertedPyramid(enter1.Text)
    End Select
Catch ex As Exception
End Try
End Sub
Private Sub pyramid(max As Integer)
    Dim kolom1 As Integer = max
    Dim kolom2 As Integer = max
    For brs As Integer = 1 To max
        For klm As Integer = 1 To max * 2 - 1
            If (klm < kolom1 Or klm > kolom2) Then
                Me.hasil &= " "
            Else
                Me.hasil &= "*"
            End If
        Next klm
        kolom1 -= 1
        kolom2 += 1
        Me.hasil &= vbCrLf
    Next brs
    hasil1.Text = hasil
End Sub

```

18. Melakukan perbandingan $klm < kolom1$ or $klm > kolom2$

```

        Case "Hollow Inverted Pyramid"
            hollowInvertedPyramid(enter1.Text)
    End Select
Catch ex As Exception
End Try
End Sub
Private Sub pyramid(max As Integer)
    Dim kolom1 As Integer = max
    Dim kolom2 As Integer = max
    For brs As Integer = 1 To max
        For klm As Integer = 1 To max * 2 - 1
            If (klm < kolom1 Or klm > kolom2) Then
                Me.hasil &= " "
            Else
                Me.hasil &= "*"
            End If
        Next klm
        kolom1 -= 1
        kolom2 += 1
        Me.hasil &= vbCrLf
    Next brs
    hasil1.Text = hasil
End Sub

```

19. Menampilkan hasil “ ”

```

        Case "Hollow Inverted Pyramid"
            hollowInvertedPyramid(enter1.Text)
    End Select
Catch ex As Exception
End Try
End Sub
Private Sub pyramid(max As Integer)
    Dim kolom1 As Integer = max
    Dim kolom2 As Integer = max
    For brs As Integer = 1 To max
        For klm As Integer = 1 To max * 2 - 1
            If (klm < kolom1 Or klm > kolom2) Then
                Me.hasil &= " "
            Else
                Me.hasil &= "*"
            End If
        Next klm
        kolom1 -= 1
        kolom2 += 1
        Me.hasil &= vbCrLf
    Next brs
    hasil1.Text = hasil
End Sub

```

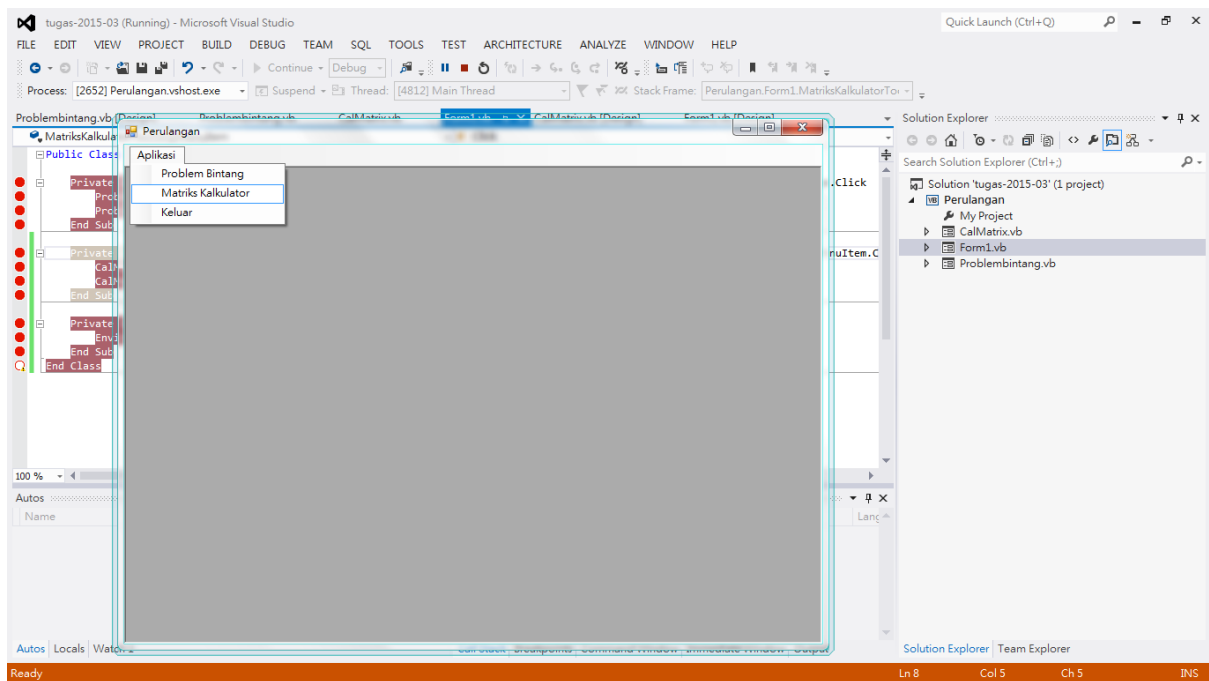
20. Perbandingan selesai

```
Problemintang pyramid
Case "Hollow Inverted Pyramid"
    hollowInvertedPyramid(enter1.Text)
End Select
Catch ex As Exception
End Try
End Sub
Private Sub pyramid(max As Integer)
    Dim kolom1 As Integer = max
    Dim kolom2 As Integer = max
    For brs As Integer = 1 To max
        For klm As Integer = 1 To max * 2 - 1
            If (klm < kolom1 Or klm > kolom2) Then
                Me.hasil &= " "
            Else
                Me.hasil &= "*"
            End If
        Next
        kolom1 -= 1
        kolom2 += 1
        Me.hasil &= vbCrLf
    Next
    hasil1.Text = hasil
End Sub
```

21. Perulangan for selesai

```
Problemintang pyramid
Case "Hollow Inverted Pyramid"
    hollowInvertedPyramid(enter1.Text)
End Select
Catch ex As Exception
End Try
End Sub
Private Sub pyramid(max As Integer)
    Dim kolom1 As Integer = max
    Dim kolom2 As Integer = max
    For brs As Integer = 1 To max
        For klm As Integer = 1 To max * 2 - 1
            If (klm < kolom1 Or klm > kolom2) Then
                Me.hasil &= " "
            Else
                Me.hasil &= "*"
            End If
        Next
        kolom1 -= 1
        kolom2 += 1
        Me.hasil &= vbCrLf
    Next
    hasil1.Text = hasil
End Sub
```

Kalkulator Matrix



1. Memanggil sub matriksKalkulatorStripMenuItem_Click



2. Membaca calMatrix.mdiParent

```
MatrksKalkulatorToolStripMenuItem Click
Public Class Form1
    Private Sub ProblemBintangToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles ProblemBintangToolStripMenuItem.Click
        ProblemBintang.MdiParent = Me
        ProblemBintang.Show()
    End Sub

    Private Sub MatrksKalkulatorToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles MatrksKalkulatorToolStripMenuItem.Click
        CalMatrix.MdiParent = Me
        CalMatrix.Show()
    End Sub

    Private Sub KeluarToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles KeluarToolStripMenuItem.Click
        Environment.Exit(0)
    End Sub
End Class
```

3. Membuka calMatrix

```
CalMatrix
Public Class CalMatrix
    Dim kolom As Boolean = True

    Private Sub hitung1_Click(sender As Object, e As EventArgs) Handles Hitung1.Click
        Try
            Dim baris1 As Integer = table1.Lines.Count
            Dim kolom1 As Integer = table1.Lines.ElementAt(0).Split(" ").Length
            Dim baris2 As Integer = table2.Lines.Count
            Dim kolom2 As Integer = table2.Lines.ElementAt(0).Split(" ").Length
            Dim cp1(baris1, kolom1) As Integer
            Dim cp2(baris2, kolom2) As Integer
            cek(baris1, baris2, kolom1, kolom2)
            copyToArray(baris1, baris2, kolom1, kolom2, cp1, cp2)
            operasi(cp1, cp2, baris1, kolom2)
        Catch ex As Exception
            MsgBox("Masukan Bukan Angka")
        End Try
    End Sub

    Private Sub copyToArray(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer, ByRef nilai1(,) As Integer, ByRef nilai2(,) As Integer)
        If (Me.kolom) Then
            For brs As Integer = 0 To brs1 - 1
                For klm As Integer = 0 To klm1 - 1
                    nilai1(brs, klm) = table1.Lines(brs).Split(" ")(klm)
                End For
            End For
            For brs As Integer = 0 To brs2 - 1
                For klm As Integer = 0 To klm2 - 1
                    nilai2(brs, klm) = table2.Lines(brs).Split(" ")(klm)
                End For
            End For
        End If
    End Sub
End Class
```

4. Menampilkan CalMatrix

```
MatrksKalkulatorToolStripMenuItem Click
Public Class Form1
    Private Sub ProblemBintangToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles ProblemBintangToolStripMenuItem.Click
        ProblemBintang.MdiParent = Me
        ProblemBintang.Show()
    End Sub

    Private Sub MatrksKalkulatorToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles MatrksKalkulatorToolStripMenuItem.Click
        CalMatrix.MdiParent = Me
        CalMatrix.Show()
    End Sub

    Private Sub KeluarToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles KeluarToolStripMenuItem.Click
        Environment.Exit(0)
    End Sub
End Class
```

```
MatrksKalkulatorToolStripMenuItem
Click

Public Class Form1

Private Sub ProblemBintangToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles ProblemBintangToolStripMenuItem.Click
    ProblemBintang.MdiParent = Me
    ProblemBintang.Show()
End Sub

Private Sub MatrksKalkulatorToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles MatrksKalkulatorToolStripMenuItem.C
    CalMatrix.MdiParent = Me
    CalMatrix.Show()
End Sub

Private Sub KeluarToolStripMenuItem_Click(sender As Object, e As EventArgs) Handles KeluarToolStripMenuItem.Click
    Environment.Exit(0)
End Sub
End Class
```

5. Tampilan Matriks Kalkulator

The screenshot shows a Windows application titled 'Perulangan' with a menu bar containing 'Aplikasi'. The main window displays a sub-window titled 'Matrks Kalkulator'. Inside this sub-window, there are two text boxes for matrix input, labeled 'Matrks 1' and 'Matrks 2'. Both boxes contain the numbers 1 2 3 and 4 5 6 arranged in two rows. Below the first matrix is a dropdown menu labeled 'Operasi' with 'Tambah' selected. Below the second matrix is a large empty text box labeled 'Hasil'. At the bottom right of the sub-window is a button labeled 'Hitung'.

6. Memanggil sub hitung1_click


```
Public Class CalMatrix
    Dim kolom As Boolean = True

    Private Sub hitung1_Click(sender As Object, e As EventArgs) Handles Hitung1.Click
        Try
            Dim baris1 As Integer = table1.Lines.Count
            Dim kolom1 As Integer = table1.Lines.ElementAt(0).Split(" ").Length
            Dim baris2 As Integer = table2.Lines.Count
            Dim kolom2 As Integer = table2.Lines.ElementAt(0).Split(" ").Length
            Dim cp1(baris1, kolom1) As Integer
            Dim cp2(baris2, kolom2) As Integer
            cek(baris1, baris2, kolom1, kolom2)
            copyToArray(baris1, baris2, kolom1, kolom2, cp1, cp2)
            operasi(cp1, cp2, baris1, kolom2)
        Catch ex As Exception
            MsgBox("Masukan Bukan Angka")
        End Try
    End Sub

    Private Sub copyToArray(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer, ByRef nilai1(,) As Integer, ByRef
        If (Me.kolom) Then
            For brs As Integer = 0 To brs1 - 1
```

7. Melakukan pembacaan atribut

```
Public Class CalMatrix
    Dim kolom As Boolean = True

    Private Sub hitung1_Click(sender As Object, e As EventArgs) Handles Hitung1.Click
        Try
            Dim baris1 As Integer = table1.Lines.Count
            Dim kolom1 As Integer = table1.Lines.ElementAt(0).Split(" ").Length
            Dim baris2 As Integer = table2.Lines.Count
            Dim kolom2 As Integer = table2.Lines.ElementAt(0).Split(" ").Length
            Dim cp1(baris1, kolom1) As Integer
            Dim cp2(baris2, kolom2) As Integer
            cek(baris1, baris2, kolom1, kolom2)
            copyToArray(baris1, baris2, kolom1, kolom2, cp1, cp2)
            operasi(cp1, cp2, baris1, kolom2)
        Catch ex As Exception
            MsgBox("Masukan Bukan Angka")
        End Try
    End Sub

    Private Sub copyToArray(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer, ByRef nilai1(,) As Integer, ByRef
        If (Me.kolom) Then
            For brs As Integer = 0 To brs1 - 1
```

```
Public Class CalMatrix
    Dim kolom As Boolean = True

    Private Sub hitung1_Click(sender As Object, e As EventArgs) Handles Hitung1.Click
        Try
            Dim baris1 As Integer = table1.Lines.Count
            Dim kolom1 As Integer = table1.Lines.ElementAt(0).Split(" ").Length
            Dim baris2 As Integer = table2.Lines.Count
            Dim kolom2 As Integer = table2.Lines.ElementAt(0).Split(" ").Length
            Dim cp1(baris1, kolom1) As Integer
            Dim cp2(baris2, kolom2) As Integer
            cek(baris1, baris2, kolom1, kolom2)
            copyToArray(baris1, baris2, kolom1, kolom2, cp1, cp2)
            operasi(cp1, cp2, baris1, kolom2)
        Catch ex As Exception
            MsgBox("Masukan Bukan Angka")
        End Try
    End Sub

    Private Sub copyToArray(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer, ByRef nilai1(,) As Integer, ByRef
        If (Me.kolom) Then
            For brs As Integer = 0 To brs1 - 1
```

```

Public Class CalMatrix
    Dim kolom As Boolean = True

    Private Sub hitung1_Click(sender As Object, e As EventArgs) Handles Hitung1.Click
        Try
            Dim baris1 As Integer = table1.Lines.Count
            Dim kolom1 As Integer = table1.Lines.ElementAt(0).Split(" ").Length
            Dim baris2 As Integer = table2.Lines.Count
            Dim kolom2 As Integer = table2.Lines.ElementAt(0).Split(" ").Length
            Dim cp1(baris1, kolom1) As Integer
            Dim cp2(baris2, kolom2) As Integer
            cek(baris1, baris2, kolom1, kolom2)
            copyToArray(baris1, baris2, kolom1, kolom2, cp1, cp2)
            operasi(cp1, cp2, baris1, kolom2)
        Catch ex As Exception
            MsgBox("Masukan Bukan Angka")
        End Try
    End Sub

    Private Sub copyToArray(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer, ByRef nilai1(,) As Integer, ByRef
        If (Me.kolom) Then
            For brs As Integer = 0 To brs1 - 1

```

Hitung1 Click

```

Public Class CalMatrix
    Dim kolom As Boolean = True

    Private Sub hitung1_Click(sender As Object, e As EventArgs) Handles Hitung1.Click
        Try
            Dim baris1 As Integer = table1.Lines.Count
            Dim kolom1 As Integer = table1.Lines.ElementAt(0).Split(" ").Length
            Dim baris2 As Integer = table2.Lines.Count
            Dim kolom2 As Integer = table2.Lines.ElementAt(0).Split(" ").Length
            Dim cp1(baris1, kolom1) As Integer
            Dim cp2(baris2, kolom2) As Integer
            cek(baris1, baris2, kolom1, kolom2)
            copyToArray(baris1, baris2, kolom1, kolom2, cp1, cp2)
            operasi(cp1, cp2, baris1, kolom2)
        Catch ex As Exception
            MsgBox("Masukan Bukan Angka")
        End Try
    End Sub

    Private Sub copyToArray(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer, ByRef nilai1(,) As Integer, ByRef
        If (Me.kolom) Then
            For brs As Integer = 0 To brs1 - 1

```

```

Public Class CalMatrix
    Dim kolom As Boolean = True

    Private Sub hitung1_Click(sender As Object, e As EventArgs) Handles Hitung1.Click
        Try
            Dim baris1 As Integer = table1.Lines.Count
            Dim kolom1 As Integer = table1.Lines.ElementAt(0).Split(" ").Length
            Dim baris2 As Integer = table2.Lines.Count
            Dim kolom2 As Integer = table2.Lines.ElementAt(0).Split(" ").Length
            Dim cp1(baris1, kolom1) As Integer
            Dim cp2(baris2, kolom2) As Integer
            cek(baris1, baris2, kolom1, kolom2)
            copyToArray(baris1, baris2, kolom1, kolom2, cp1, cp2)
            operasi(cp1, cp2, baris1, kolom2)
        Catch ex As Exception
            MsgBox("Masukan Bukan Angka")
        End Try
    End Sub

    Private Sub copyToArray(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer, ByRef nilai1(,) As Integer, ByRef
        If (Me.kolom) Then
            For brs As Integer = 0 To brs1 - 1

```

```

Public Class CalMatrix
    Dim kolom As Boolean = True

    Private Sub hitung1_Click(sender As Object, e As EventArgs) Handles Hitung1.Click
        Try
            Dim baris1 As Integer = table1.Lines.Count
            Dim kolom1 As Integer = table1.Lines.ElementAt(0).Split(" ").Length
            Dim baris2 As Integer = table2.Lines.Count
            Dim kolom2 As Integer = table2.Lines.ElementAt(0).Split(" ").Length
            Dim cp1(baris1, kolom1) As Integer
            Dim cp2(baris2, kolom2) As Integer
            cek(baris1, baris2, kolom1, kolom2)
            copyToArray(baris1, baris2, kolom1, kolom2, cp1, cp2)
            operasi(cp1, cp2, baris1, kolom2)
        Catch ex As Exception
            MsgBox("Masukan Bukan Angka")
        End Try
    End Sub

    Private Sub copyToArray(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer, ByRef nilai1(,) As Integer, ByRef
        If (Me.kolom) Then
            For brs As Integer = 0 To brs1 - 1

```

```

Public Class CalMatrix
    Dim kolom As Boolean = True

    Private Sub hitung1_Click(sender As Object, e As EventArgs) Handles Hitung1.Click
        Try
            Dim baris1 As Integer = table1.Lines.Count
            Dim kolom1 As Integer = table1.Lines.ElementAt(0).Split(" ").Length
            Dim baris2 As Integer = table2.Lines.Count
            Dim kolom2 As Integer = table2.Lines.ElementAt(0).Split(" ").Length
            Dim cp1(baris1, kolom1) As Integer
            Dim cp2(baris2, kolom2) As Integer
            cek(baris1, baris2, kolom1, kolom2)
            copyToArray(baris1, baris2, kolom1, kolom2, cp1, cp2)
            operasi(cp1, cp2, baris1, kolom2)
        Catch ex As Exception
            MsgBox("Masukan Bukan Angka")
        End Try
    End Sub

    Private Sub copyToArray(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer, ByRef nilai1(,) As Integer, ByRef
        If (Me.kolom) Then
            For brs As Integer = 0 To brs1 - 1

```

8. Memanggil sub cek

```

End Sub

Private Sub cek(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer)
    Dim tmp As Boolean = True
    For brs = 0 To brs1 - 2
        If (table1.Lines.ElementAt(brs).Split(" ").Length <> table2.Lines.ElementAt(brs + 1).Split(" ").Length) Then
            tmp = False
        End If
    Next
    For brs = 0 To brs2 - 2
        If (table1.Lines.ElementAt(brs).Split(" ").Length <> table2.Lines.ElementAt(brs + 1).Split(" ").Length) Then
            tmp = False
        End If
    Next
    If (tmp = False) Then
        Me.kolom = False
        Convert.ToInt32(table1.Text)
        Convert.ToInt32(table2.Text)
        MsgBox("Matrix Tidak Valid")
    ElseIf (brs1 = brs2 And klm1 = klm2) Then
        Me.kolom = True
    Else
        Me.kolom = False
    End If
End Sub

```

9. Membaca atribut tmp dari sub cek

```

CalMatrix
cek
End Sub

Private Sub cek(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer)
    Dim tmp As Boolean = True
    For brs = 0 To brs1 - 2
        If (table1.Lines.ElementAt(brs).Split(" ").Length <> table2.Lines.ElementAt(brs + 1).Split(" ").Length) Then
            tmp = False
        End If
    Next
    For brs = 0 To brs2 - 2
        If (table1.Lines.ElementAt(brs).Split(" ").Length <> table2.Lines.ElementAt(brs + 1).Split(" ").Length) Then
            tmp = False
        End If
    Next
    If (tmp = False) Then
        Me.kolom = False
        Convert.ToInt32(table1.Text)
        Convert.ToInt32(table2.Text)
        MsgBox("Matrix Tidak Valid")
    ElseIf (brs1 = brs2 And klm1 = klm2) Then
        Me.kolom = True
    Else
        Me.kolom = False
    End If
End Sub

```

10. Melakukan perulangan for

```

Private Sub cek(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer)
    Dim tmp As Boolean = True
    For brs = 0 To brs1 - 2
        If (table1.Lines.ElementAt(brs).Split(" ").Length <> table2.Lines.ElementAt(brs + 1).Split(" ").Length) Then
            tmp = False
        End If
    Next
    For brs = 0 To brs2 - 2
        If (table1.Lines.ElementAt(brs).Split(" ").Length <> table2.Lines.ElementAt(brs + 1).Split(" ").Length) Then
            tmp = False
        End If
    Next
    If (tmp = False) Then
        Me.kolom = False
        Convert.ToInt32(table1.Text)
        Convert.ToInt32(table2.Text)
        MsgBox("Tidak Valid")
    ElseIf (brs1 = brs2 And klm1 = klm2) Then
        Me.kolom = True
    Else
        Me.kolom = False
        MsgBox("Baris dan Kolom Matrix Harus Sama")
    End If
End Sub

```

11. Melakukan perbandingan

```

CalMatrix
cek
End Sub

Private Sub cek(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer)
    Dim tmp As Boolean = True
    For brs = 0 To brs1 - 2
        If (table1.Lines.ElementAt(brs).Split(" ").Length <> table2.Lines.ElementAt(brs + 1).Split(" ").Length) Then
            tmp = False
        End If
    Next
    For brs = 0 To brs2 - 2
        If (table1.Lines.ElementAt(brs).Split(" ").Length <> table2.Lines.ElementAt(brs + 1).Split(" ").Length) Then
            tmp = False
        End If
    Next
    If (tmp = False) Then
        Me.kolom = False
        Convert.ToInt32(table1.Text)
        Convert.ToInt32(table2.Text)
        MsgBox("Tidak Valid")
    ElseIf (brs1 = brs2 And klm1 = klm2) Then
        Me.kolom = True
    Else
        Me.kolom = False
        MsgBox("Baris dan Kolom Matrix Harus Sama")
    End If
End Sub

```

12. Kembali melakukan pembacaan di copyToArray

```

Hitung1
- Click
Dim kolom As Boolean = True

Private Sub hitung1_Click(sender As Object, e As EventArgs) Handles Hitung1.Click
    Try
        Dim baris1 As Integer = table1.Lines.Count
        Dim kolom1 As Integer = table1.Lines.ElementAt(0).Split(" ").Length
        Dim baris2 As Integer = table2.Lines.Count
        Dim kolom2 As Integer = table2.Lines.ElementAt(0).Split(" ").Length
        Dim cp1(baris1, kolom1) As Integer
        Dim cp2(baris2, kolom2) As Integer
        cek(baris1, baris2, kolom1, kolom2)
        copyToArray(baris1, baris2, kolom1, kolom2, cp1, cp2)
        operasi(cp1, cp2, baris1, kolom2)
    Catch ex As Exception
        MsgBox("Bukan Angka")
    End Try
End Sub

Private Sub copyToArray(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer, ByRef nilai1(,) As Integer, ByRef nilai2(,) As Integer)
    If (Me.kolom) Then
        For brs As Integer = 0 To brs1 - 1
            For klm As Integer = 0 To klm1 - 1
                nilai1(brs, klm) = table1.Lines.ElementAt(brs).Split(" ").ElementAt(klm)
                nilai2(brs, klm) = table2.Lines.ElementAt(brs).Split(" ").ElementAt(klm)
            Next
        Next
    End If
End Sub

```

13. Lalu melanjutkan sub copyToArray untuk melakukan perbandingan

```

Private Sub copyToArray(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer, ByRef nilai1(,) As Integer, ByRef nilai2(,) As Integer)
    If (Me.kolom) Then
        For brs As Integer = 0 To brs1 - 1
            For klm As Integer = 0 To klm1 - 1
                nilai1(brs, klm) = table1.Lines.ElementAt(brs).Split(" ").ElementAt(klm)
                nilai2(brs, klm) = table2.Lines.ElementAt(brs).Split(" ").ElementAt(klm)
            Next
        Next
    End If
End Sub

Private Sub cek(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer)
    Dim tmp As Boolean = True

```

14. Melakukan pembacaan operasi

```

Class CalMatrix
Dim kolom As Boolean = True

Private Sub hitung1_Click(sender As Object, e As EventArgs) Handles Hitung1.Click
    Try
        Dim baris1 As Integer = table1.Lines.Count
        Dim kolom1 As Integer = table1.Lines.ElementAt(0).Split(" ").Length
        Dim baris2 As Integer = table2.Lines.Count
        Dim kolom2 As Integer = table2.Lines.ElementAt(0).Split(" ").Length
        Dim cp1(baris1, kolom1) As Integer
        Dim cp2(baris2, kolom2) As Integer
        cek(baris1, baris2, kolom1, kolom2)
        copyToArray(baris1, baris2, kolom1, kolom2, cp1, cp2)
        operasi(cp1, cp2, baris1, kolom2)
    Catch ex As Exception
        MsgBox("Bukan Angka")
    End Try
End Sub

Private Sub copyToArray(ByVal brs1 As Integer, brs2 As Integer, klm1 As Integer, klm2 As Integer, ByRef nilai1(,) As Integer, ByRef nilai2(,) As Integer)
    If (Me.kolom) Then
        For brs As Integer = 0 To brs1 - 1

```

15. Melakukan pemilihan case yang di pilih di combobox

```

Private Sub operasi(ByVal matriks1(,) As Integer, matriks2(,) As Integer, batasBaris As Integer, batasKolom As Integer)
    Dim hasil As String = ""
    If (Me.kolom) Then
        Select Case operasi1.Text
            Case "Tambah"
                For brs As Integer = 0 To batasBaris - 1
                    For klm As Integer = 0 To batasKolom - 1
                        hasil &= (matriks1(brs, klm) + matriks2(brs, klm)).ToString & vbTab
                    Next
                    hasil &= vbCrLf
                Next
            Case "Kurang"
                For brs As Integer = 0 To batasBaris - 1
                    For klm As Integer = 0 To batasKolom - 1
                        hasil &= (matriks1(brs, klm) - matriks2(brs, klm)).ToString & vbTab
                    Next
                    hasil &= vbCrLf
                Next
            Case Else
                MsgBox("Anda Belum Memilih Operasi")
        End Select
    End If
End Sub

```

16. Menampilkan hasil

```

Dim hasil As String = ""
If (Me.kolom) Then
    Select Case operasi1.Text
        Case "Tambah"
            For brs As Integer = 0 To batasBaris - 1
                For klm As Integer = 0 To batasKolom - 1
                    hasil &= (matriks1(brs, klm) + matriks2(brs, klm)).ToString & vbTab
                Next
                hasil &= vbCrLf
            Next
        Case "Kurang"
            For brs As Integer = 0 To batasBaris - 1
                For klm As Integer = 0 To batasKolom - 1
                    hasil &= (matriks1(brs, klm) - matriks2(brs, klm)).ToString & vbTab
                Next
                hasil &= vbCrLf
            Next
        Case Else
            MsgBox("Anda Belum Memilih Operasi")
    End Select
    HasilBox.Text = hasil
End If
End Sub

```