

Treće laboratorijske vježbe

Primjer 13.

```
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
    Dim place() As Integer = {2500, 3500, 5500, 7000, 8000, 9500}
    Dim spremnik As Integer
    Dim prosjek As Double

    For Each placa As Integer In place
        spremnik += placa
    Next placa

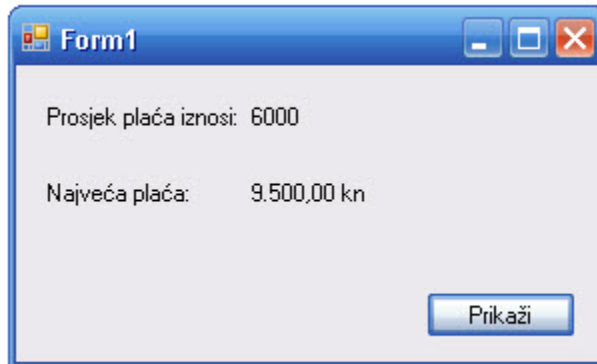
    prosjek = spremnik / place.Length

    Label1.Text = prosjek.ToString

    Dim max As Decimal = place(0)
    For indeks As Integer = 1 To place.Length - 1
        If place(indeks) > max Then
            max = place(indeks)
        End If
    Next indeks

    Label4.Text = max.ToString("C2")

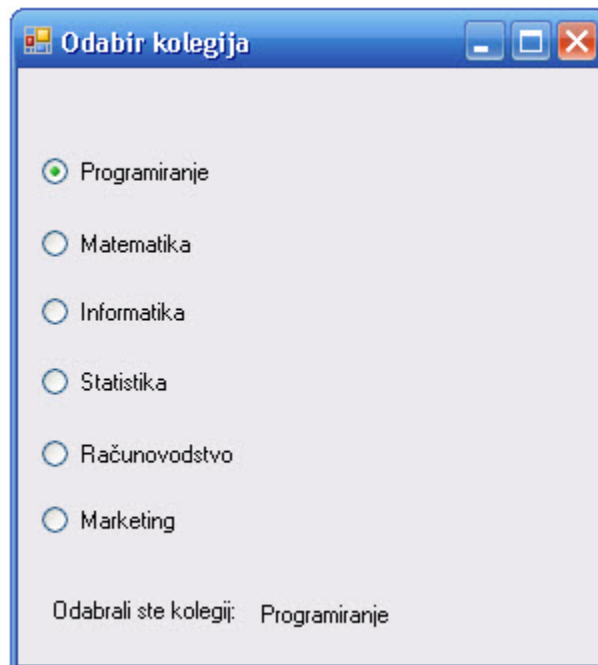
End Sub
```



The screenshot shows a Windows application window titled "Form1". The window contains two lines of text: "Prosjek plaća iznosi: 6000" and "Najveća plaća: 9.500,00 kn". At the bottom right of the window, there is a button labeled "Prikaži". The window has standard Windows window controls (minimize, maximize, close) in the top right corner.

Primjer 14 – polje dinamične veličine

```
Public Class PoljeKolegija
    Dim kolegiji() As String = {"Programiranje", "Matematika", "Informatika",
    "Statistika", "Računovodstvo", "Marketing"}
    Private Sub RadioButton1_CheckedChanged(ByVal sender As System.Object,
    ByVal e As System.EventArgs) Handles RadioButton1.CheckedChanged
        Label2.Text = kolegiji(0)
    End Sub
    Private Sub RadioButton2_CheckedChanged(ByVal sender As System.Object,
    ByVal e As System.EventArgs) Handles RadioButton2.CheckedChanged
        Label2.Text = kolegiji(1)
    End Sub
    Private Sub RadioButton3_CheckedChanged(ByVal sender As System.Object,
    ByVal e As System.EventArgs) Handles RadioButton3.CheckedChanged
        Label2.Text = kolegiji(2)
    End Sub
    Private Sub RadioButton4_CheckedChanged(ByVal sender As System.Object,
    ByVal e As System.EventArgs) Handles RadioButton4.CheckedChanged
        Label2.Text = kolegiji(3)
    End Sub
    Private Sub RadioButton5_CheckedChanged(ByVal sender As System.Object,
    ByVal e As System.EventArgs) Handles RadioButton5.CheckedChanged
        Label2.Text = kolegiji(4)
    End Sub
    Private Sub RadioButton6_CheckedChanged(ByVal sender As System.Object,
    ByVal e As System.EventArgs) Handles RadioButton6.CheckedChanged
        Label2.Text = kolegiji(5)
    End Sub
End Class
```



Primjer 15.

```
Public Class PoljeKolegija
    Dim kolegiji(6) As String
    Dim index_kolegija As Integer

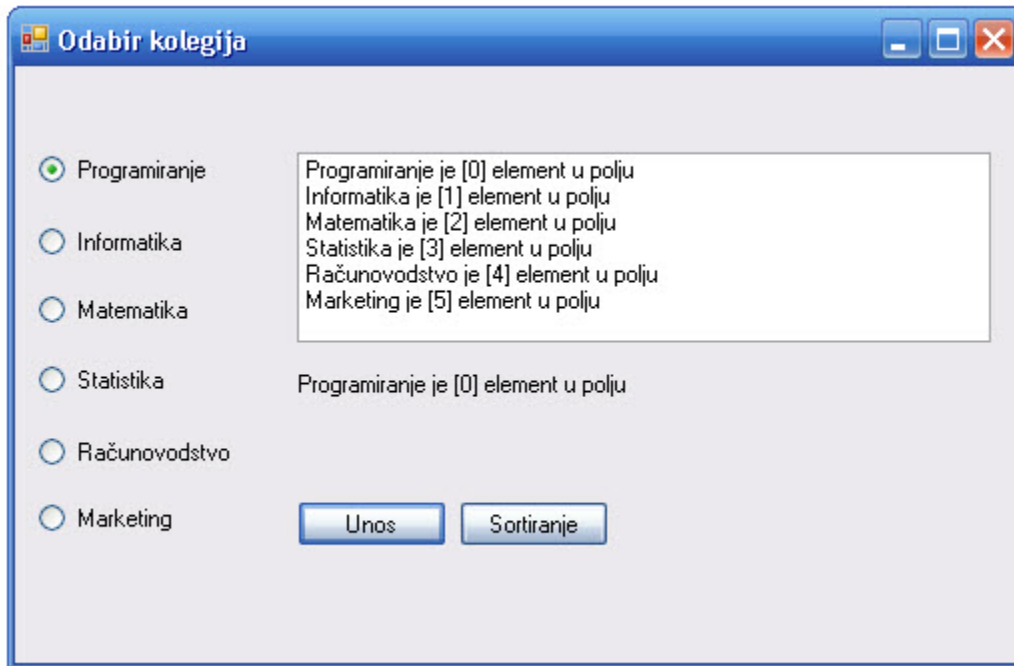
    Private Sub PoljeKolegija_Load(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles MyBase.Load
        kolegiji(0) = "Programiranje"
        kolegiji(1) = "Informatika"
        kolegiji(2) = "Matematika"
        kolegiji(3) = "Statistika"
        kolegiji(4) = "Računovodstvo"
        kolegiji(5) = "Marketing"
    End Sub
    Private Sub RadioButton1_CheckedChanged(ByVal sender As System.Object,
ByVal e As System.EventArgs) Handles RadioButton1.CheckedChanged
        Label1.Text = "Programiranje je [" & (Array.IndexOf(kolegiji,
"Programiranje")) & "] element u polju"
    End Sub
    Private Sub RadioButton2_CheckedChanged(ByVal sender As System.Object,
ByVal e As System.EventArgs) Handles RadioButton2.CheckedChanged
        Label1.Text = "Informatika je [" & (Array.IndexOf(kolegiji,
"Informatika")) & "] element u polju"
    End Sub
    Private Sub RadioButton3_CheckedChanged(ByVal sender As System.Object,
ByVal e As System.EventArgs) Handles RadioButton3.CheckedChanged
        Label1.Text = "Matematika je [" & (Array.IndexOf(kolegiji,
"Matematika")) & "] element u polju"
    End Sub
    Private Sub RadioButton4_CheckedChanged(ByVal sender As System.Object,
ByVal e As System.EventArgs) Handles RadioButton4.CheckedChanged
        Label1.Text = "Statistika je [" & (Array.IndexOf(kolegiji,
"Statistika")) & "] element u polju"
    End Sub
    Private Sub RadioButton5_CheckedChanged(ByVal sender As System.Object,
ByVal e As System.EventArgs) Handles RadioButton5.CheckedChanged
        Label1.Text = "Računovodstvo je [" & (Array.IndexOf(kolegiji,
"Računovodstvo")) & "] element u polju"
    End Sub
    Private Sub RadioButton6_CheckedChanged(ByVal sender As System.Object,
ByVal e As System.EventArgs) Handles RadioButton6.CheckedChanged
        Label1.Text = "Marketing je [" & (Array.IndexOf(kolegiji,
"Marketing")) & "] element u polju"
    End Sub

    Private Sub Button1_Click_1(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        Dim i As Integer
        For i = 0 To 5
            ListBox1.Items.Add(kolegiji(i) & " je [" & i & "] element u
polju")
        Next
    End Sub
End Class
```

```

Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
    ListBox1.Items.Clear()
    Array.Sort(kolegiji)
    Dim i As Integer
    For i = 1 To 6
        ListBox1.Items.Add(kolegiji(i) & " je [" & i & "] element u
polju")
    Next
End Sub
End Class

```



Primjer 16.

```
Public Class Form1
```

```
    Private naziviKolegija(5) As String
```

```

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        For indeks As Integer = 0 To naziviKolegija.Length - 1
            naziviKolegija(indeks) = InputBox("Naziv kolegija", "Nazivi
kolegija")
        Next indeks
        Label1.Text = String.Empty
        For Each naziv As String In naziviKolegija
            Label1.Text = Label1.Text & naziv & ControlChars.NewLine
        Next naziv
    End Sub

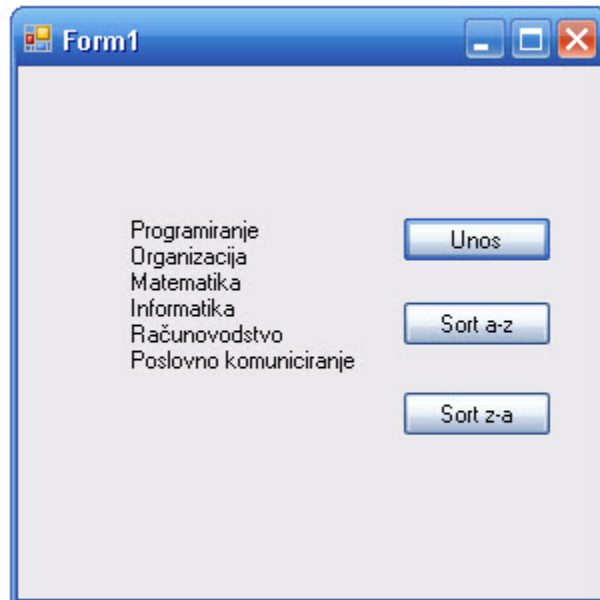
```

```

Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
    Array.Sort(naziviKolegija)
    Label1.Text = String.Empty
    For Each naziv As String In naziviKolegija
        Label1.Text = Label1.Text & naziv & ControlChars.NewLine
    Next naziv
End Sub

Private Sub Button3_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button3.Click
    Array.Sort(naziviKolegija)
    Array.Reverse(naziviKolegija)
    Label1.Text = String.Empty
    For Each naziv As String In naziviKolegija
        Label1.Text = Label1.Text & naziv & ControlChars.NewLine
    Next naziv
End Sub
End Class

```



Primjer 17.

```
Private naziviKolegija(5) As String
```

```

Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
    Dim sifre() As String = {"PR35", "IN20", "MA15", "ST10", "RA08"}
    Dim nazivi() As String = {"Programiranje", "Informatika",
"Matematika", "Statistika", "Računovodstvo"}
    Dim trazi As String = String.Empty
    Dim indeks As Integer
    trazi = TextBox1.Text

    Do Until indeks = sifre.Length OrElse trazi = sifre(indeks)

```

```

        indeks += 1
    Loop

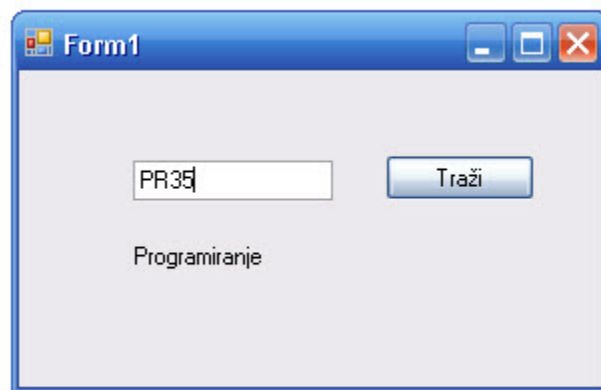
    If indeks < sifre.Length Then
        Label1.Text = nazivi(indeks).ToString
    Else
        MessageBox.Show("Pogrešna šifra kolegija!", "FOI Varaždin",
        MessageBoxButtons.OK, MessageBoxIcon.Warning)

    End If

    TextBox1.Focus()

End Sub

```



Primjer 18. Slijedno pretraživanje

```

Public Class Form1
    Dim N, A As Integer, DN As Boolean
    Dim P(100) As Integer

    Private Sub Button1_Click_1(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        Dim I As Integer
        N = InputBox("Koliko brojeva želite unijeti (max 100)?")
        For I = 1 To N
            P(I) = InputBox(Str(I) & ". broj = ")
        Next
    End Sub

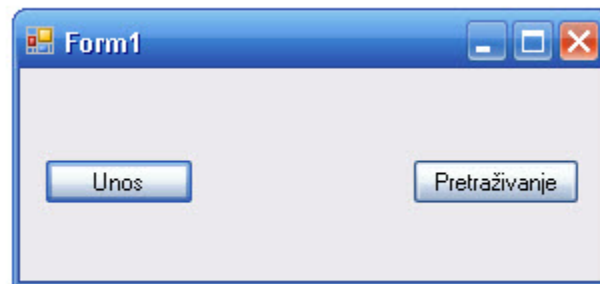
    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        A = InputBox("Traženi broj je ?")
        DN = False
        Dim I As Integer
        For I = 1 To N
            If P(I) = A Then
                DN = True
                Exit For
            End If
        Next
    End Sub

```

```

Next
If DN Then
    MsgBox("Broj " & Str(A) & " se nalazi u nizu.")
Else
    MsgBox("Broj " & Str(A) & " se ne nalazi u nizu.")
End If
End Sub
End Class

```



Primjer 19. Selection Sort (Sortiranje izborom)

```

Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click

```

```

    Dim N, I As Integer, P(1000) As Single

```

```

    N = InputBox("Koliko brojeva želite unijeti?")

```

```

    For I = 1 To N

```

```

        P(I) = InputBox("Unesite " & Str(I) & ". broj:")

```

```

    Next

```

```

    SelectionSort(P, N)

```

```

End Sub

```

```

Sub SelectionSort(ByRef P() As Single, ByVal N As Integer)

```

```

    Dim I, J, Max As Integer, Pom As Single

```

```

    Dim Ispis As String

```

```

    For I = N To 2 Step -1

```

```

        Max = 1

```

```

        For J = 2 To I

```

```

            If P(J) > P(Max) Then Max = J

```

```

        Next

```

```

        If Max <> I Then

```

```

            Pom = P(Max)

```

```

            P(Max) = P(I)

```

```

            P(I) = Pom

```

```

        End If

```

```

    Next

```

```

    Ispis = ""

```

```

    For I = 1 To N

```

```

        Ispis = Ispis & Str(P(I))

```

```

        If I < N Then Ispis = Ispis & ", "

```

```

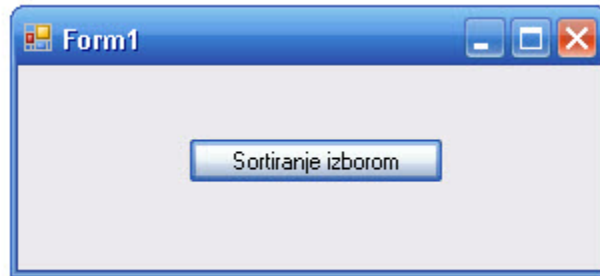
    Next

```

```

        MessageBox.Show("Sortirani niz brojeva:" & Ispis, "Sortiranje izborom", MessageBoxButtons.OK, MessageBoxIcon.Information)
    End Sub

```



Primjer 20. Bubble sort (Mjehuričasto sortiranje)

```

Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click
    Dim A(100) As Single, N As Integer
    N = InputBox("Koliko brojeva želite unijeti?")
    Unos(A, N)
    BubbleSort(A, N)
    Ispis(A, N)
End Sub

Sub Unos(ByRef A() As Single, ByVal N As Integer)
    Dim I As Integer
    For I = 1 To N
        A(I) = InputBox("Unesite " & Str(I) & ". broj:")
    Next
End Sub

Sub BubbleSort(ByRef A() As Single, ByVal N As Integer)
    Dim I, J As Integer, Pom As Single
    For I = N - 1 To 1 Step -1
        For J = 1 To I
            If A(J) > A(J + 1) Then
                Pom = A(J)
                A(J) = A(J + 1)
                A(J + 1) = Pom
            End If
        Next
    Next
End Sub

Sub Ispis(ByVal A() As Single, ByVal N As Integer)
    Dim I As Integer, St As String
    If N > 0 Then St = Str(A(1)) Else St = ""
    For I = 2 To N
        St = St & ", " & A(I)
    Next
    MessageBox.Show("Sortirani niz brojeva:" & St, "Mjehuričasto sortiranje", MessageBoxButtons.OK, MessageBoxIcon.Information)
End Sub

```