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COMPUTER PROGRAMMING

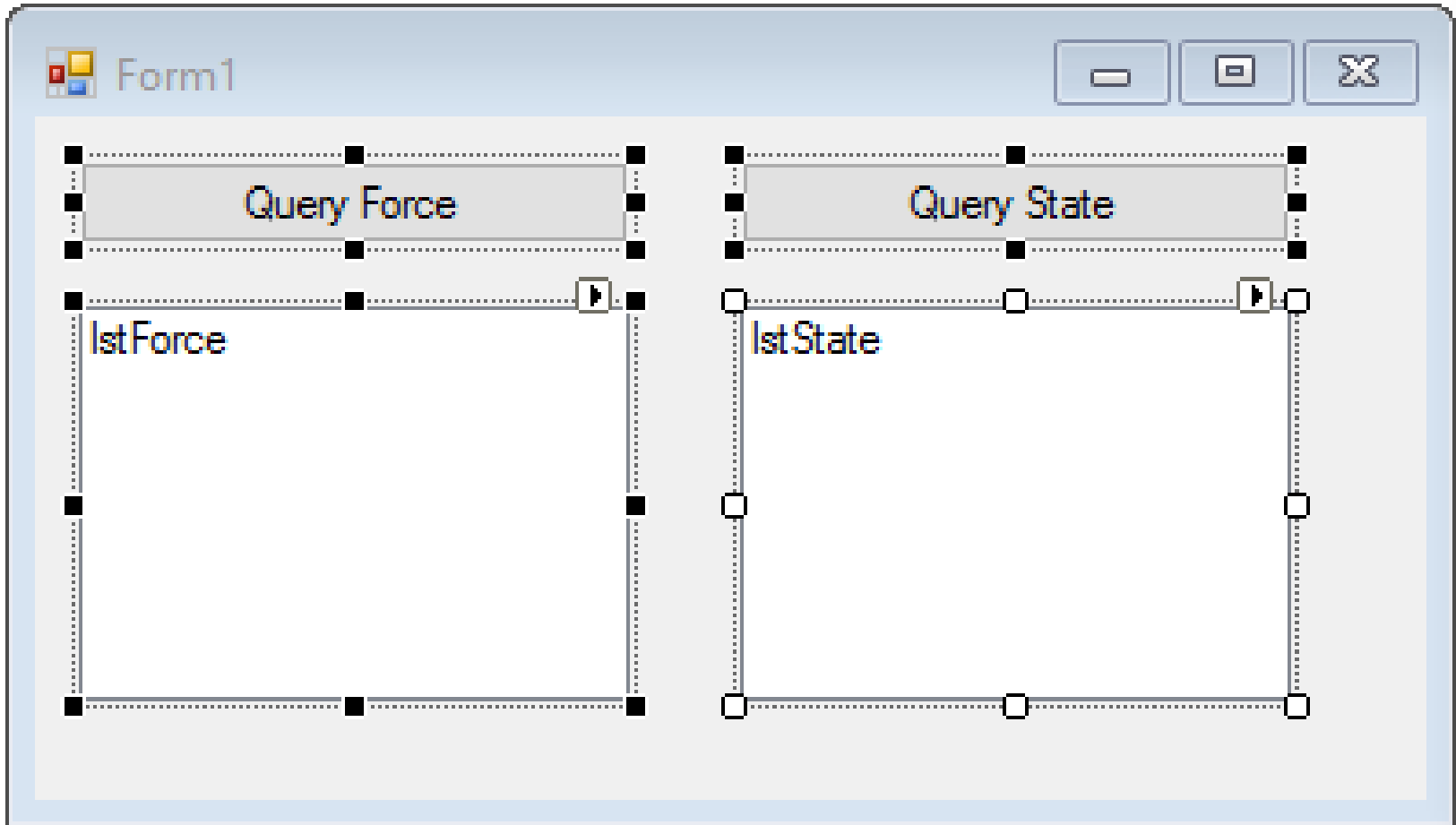
ARRAY-2-Exercise

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Exercise 31 –Arrays Query (Form)



Exercise 31 –Arrays Query (Codes)

```
Private Sub btnForce_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnForce.Click
    Dim BeamForce() As Integer = {5, 12, 8, 7, 11, 13, 6, 10}
    Dim BeamForceQuery = From Force In BeamForce
        Where Force > 7
        Select Force
    For Each Force As Integer In BeamForceQuery
        lstForce.Items.Add(Force)
    Next
End Sub
```

```
Private Sub btnState_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnState.Click
    Dim states() As String = {"Pahang", "Selangor", "Johor", "Kelantan", "WPKL",
"PENANG", "N9", "PENANG"}
    Dim stateQuery = From state In states
        Where state.Length > 5
        Select state
    For Each state As String In stateQuery
        lstState.Items.Add(state)
    Next
End Sub
End Class
```



Exercise 31 –Arrays Query (Output)

The screenshot shows a Windows application window titled "Form1". It contains two text boxes. The left text box is labeled "Query Force" and contains the following text:
12
8
11
13
10

The right text box is labeled "Query State" and contains the following text:
Pahang
Selangor
Kelantan
PENANG
PENANG

Using other Built-in Properties of Query

Let's modify Exercise 31

Replace the For Each loop in BeamForce example with:

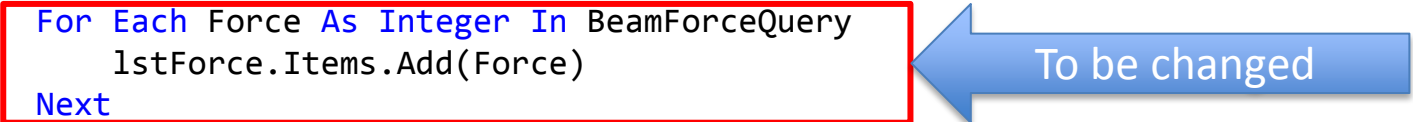
```
IstForce.Items.Add(BeamForceQuery.Count)
IstForce.Items.Add(BeamForceQuery.Min)
IstForce.Items.Add(BeamForceQuery(1))
```

Replace the For Each loop in States example with:

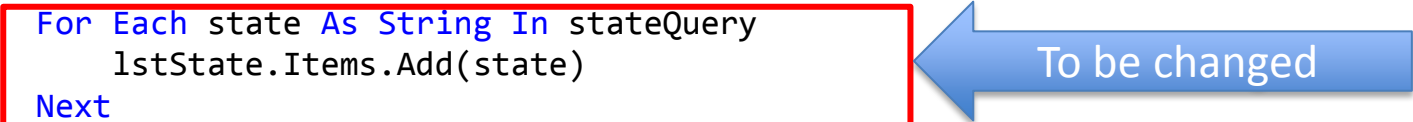
```
IstForce.Items.Add(BeamForceQuery.Count)
IstForce.Items.Add(BeamForceQuery.Min)
IstForce.Items.Add(BeamForceQuery(1))
```

Exercise 31 –Arrays Query (Existing Codes)

```
Private Sub btnForce_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnForce.Click
    Dim BeamForce() As Integer = {5, 12, 8, 7, 11, 13, 6, 10}
    Dim BeamForceQuery = From Force In BeamForce
        Where Force > 7
        Select Force
    For Each Force As Integer In BeamForceQuery
        lstForce.Items.Add(Force)
    Next
End Sub
```




```
Private Sub btnState_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnState.Click
    Dim states() As String = {"Pahang", "Selangor", "Johor", "Kelantan", "WPKL",
"PENANG", "N9", "PENANG"}
    Dim stateQuery = From state In states
        Where state.Length > 5
        Select state
    For Each state As String In stateQuery
        lstState.Items.Add(state)
    Next
End Sub
End Class
```




Exercise 32 –Arrays Query (Codes)

```
Private Sub btnForce_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnForce.Click
    Dim BeamForce() As Integer = {5, 12, 8, 7, 11, 13, 6, 10}
    Dim BeamForceQuery = From Force In BeamForce
                          Where Force > 7
                          Select Force
    lstForce.Items.Add(BeamForceQuery.Count)
    lstForce.Items.Add(BeamForceQuery.Min)
    lstForce.Items.Add(BeamForceQuery(1))
End Sub
```



```
Private Sub btnState_Click(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles btnState.Click
    Dim states() As String = {"Pahang", "Selangor", "Johor", "Kelantan", "WPKL",
"PENANG", "N9", "PENANG"}
    Dim stateQuery = From state In states
                    Where state.Length > 5
                    Select state
    lstState.Items.Add(stateQuery.Count)
    lstState.Items.Add(stateQuery.Min)
    lstState.Items.Add(stateQuery(1))
End Sub
End Class
```



Exercise 32 –Arrays Query Properties (Output)

The screenshot shows a Windows form titled "Form1" with two buttons and two text boxes. The "Query Force" button is on the left, and the "Query State" button is on the right. Below the "Query Force" button, the text box contains the numbers 5, 8, and 8. Below the "Query State" button, the text box contains the number 5, followed by the text "Kelantan" and "Selangor" on separate lines.

Exercise 33 –Arrays of Structure: UDT (Form and Output)

Form1

Display Country Information

Country Name:

Continent:

Population:

Area:

Density:

Form1

Display Country Information

Country Name:

Continent:

Population:

Area:

Density:

Exercise 33 –Arrays of Structure: UDT (Codes - Part1)

```
Public Class Form1
```

```
    Structure Nation
```

```
        Dim name As String
```

```
        Dim continent As String
```

```
        Dim population As Double 'in millions
```

```
        Dim area As Double 'in square miles
```

```
    End Structure
```

Exercise 33 –Arrays of Structure: UDT (Codes - Part2)

```
Public Class Form1
```

```
Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles btnDisplay.Click  
    Dim country As Nation  
    'Assign values to country's member variables  
    Dim line As String = "Malaysia,Asia,31.622,330803"  
    Dim data() As String = line.Split(",")  
    country.name = data(0)  
    country.continent = data(1)  
    country.population = CDb1(data(2))  
    country.area = CDb1(data(3))  
    'Display data in text boxes  
    txtName.Text = country.name  
    txtContinent.Text = country.continent  
    txtPop.Text = (1000000 * country.population)  
    txtArea.Text = (country.area) & " square miles"  
    txtDensity.Text = (1000000 * country.population / country.area) & "  
people per square mile"  
End Sub
```