higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE (VOCATIONAL)

COMPUTER PROGRAMMING
NQF LEVEL 4
(Second paper)

28 November 2024

This marking guideline consists of 7 pages.

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QUESTION 1

1.1.1
```
Private strTime As String
Private intSize As Integer✓
Private strGroup As String
Private decPrice As Decimal
Private decDiscount As Decimal✓
Private decTotalPrice As Decimal
```
(2)

1.1.2
```
Public Property sTime() As String✓
        Get
            Return strTime✓
        End Get
        Set(value As String)

            strTime = value✓
            If strTime = "Day" Then
                decPrice = 250
            End If
            If strTime = "Night" Then
                decPrice = 500
            End If
        End Set✓
End Property

Public Property size() As Integer✓
        Get
            Return intSize✓

        End Get
        Set(value As Integer)
            intSize = value
        End Set
 End Property
```
(4)

1.1.3
```
Public Sub New()✓
    strTime="" ✓
    intSize=0
    decPrice= 0.0
End Sub
```
(2)

1.1.4
```
Public Function calDiscount()✓
   If intSize >= 4 And intSize <= 10 Then✓
      decDiscount = (decPrice * intSize) * 0.05
   End If

   If intSize > 10 And intSize <= 20 Then
      decDiscount = (decPrice * intSize) * 0.15✓
   End If
   If intSize > 20 Then
       decDiscount = (decPrice * intSize) * 0.2✓
   End If
   Return decDiscount
End Function
```
(4)

1.1.5
```
Public Function calTotalPrice()✓
  Dim decTotal = (decPrice * intSize) - calDiscount()✓
  Return decTotal✓
End Function
```
(3)

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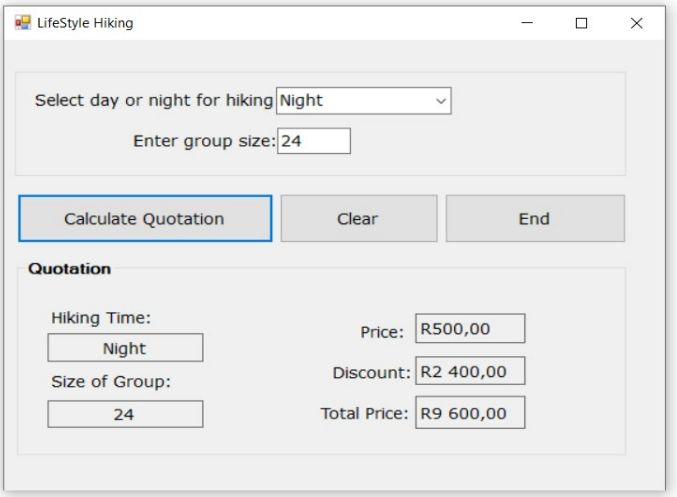
1.2.1
```
Dim strTime As String
Dim intGroupSize As Integer✓
Dim decTotalPrice As Decimal
Dim decDiscountAmount As Decimal✓
Dim decPriceAmt As Decimal
strTime = cmbDay.Text✓
intGroupSize = CInt(txtSize.Text)
```
(3)

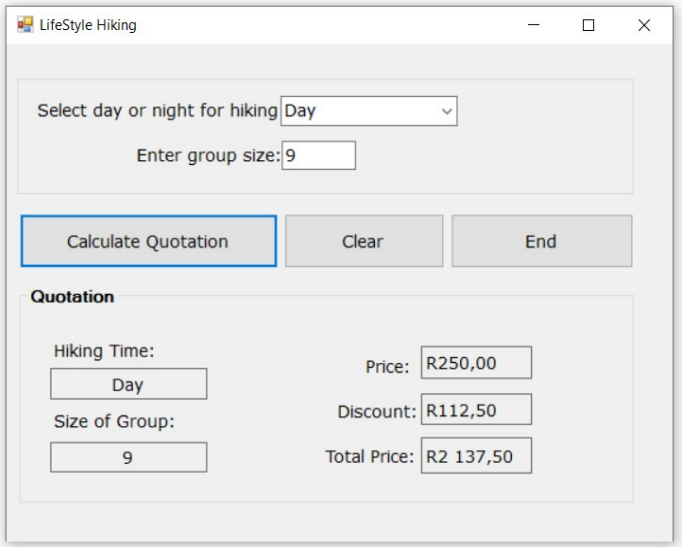
1.2.2
```
Dim objCalQ As New clsQuoatation✓
```
(1)

1.2.3
```
objCalQ.sTime = strTime✓
objCalQ.size = intGroupSize
decDiscountAmount = objCalQ.calDiscount()✓
decTotalPrice = objCalQ.calTotalPrice()
decPriceAmt = objCalQ.decPrice✓
```
(3)

1.2.4
```
lblHiking.Text = objCalQ.sTime✓
lblSize.Text = objCalQ.size✓
lblDiscount.Text = decDiscountAmount.ToString("c2")✓
lblPrice.Text = decPriceAmt.ToString("c2")
lblTotal.Text = decTotalPrice.ToString("c2"))✓
```
(4)

1.3





(1)
[27]

QUESTION 2

2.1
```
Dim userInput(4, 1) ✓ As String
```
(1)

2.2
```
Dim i As Integer
Dim j As Integer✓
```
(1)

2.3
```
For i = 0 To 4 ' rOWS
   For j = 0 To 1 ' columns✓
      Dim txtBox As TextBox = Me.Controls("txtBox_" & i & "_" & j) ✓
      userInput(i, j) = txtBox.Text✓
   Next
Next
```
(3)

2.4
```
Dim rowindex As Integer = userInput.GetUpperBound(0)
Dim colindex As Integer = userInput.GetUpperBound(1) ✓
lstDisplay.Items.Add("ASSESSMENT TOTALS")
For i = 0 To rowindex✓
    Dim strDisplay As String = "No " & (i + 1) & " : " & vbTab✓
    For j = 0 To colindex
        strDisplay &= userInput(i, j).ToString() & " | "✓
    Next j
    lstDisplay.Items.Add(strDisplay)
    lstDisplay.Items.Add(" ")✓
Next i
```
(5)

[Any other valid variant of the above code structures will be accepted] **[10]**

QUESTION 3

3.1.1
```
Dim redate✓ As DateTime = DateTimePicker1.Value.ToShortDateString✓
```
(2)

3.1.2
```
Dim dbconnect As New OleDb.OleDbConnection✓
Dim command As New OleDb.OleDbCommand✓
Dim table As New Data.DataTable✓
dbconnect.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;Data
Source=C:\CPL4\P2\NOV24\QUESTION3\Admissions.mdb"✓
dbconnect.Open()✓
command.Connection = dbconnect✓
```
(6)

3.1.3
```
command.CommandText ✓= "insert into tblstudent ✓
(Studentname,surname,Gender,contact,EmailAddress,CourseID,RegistrationDate)
VALUES(@fname,@sName,@gender,@contact,@email,@COURSEID,@regDate)" ✓✓
```
(4)

3.1.4
```
Dim parID As New OleDb.OleDbParameter("@Fname", txtFname.Text) ✓
Dim parName As New OleDb.OleDbParameter("@sname", txtSurname.Text)
Dim parContact As New OleDb.OleDbParameter("@gender", txtContact.Text) ✓
Dim parGender As New OleDb.OleDbParameter("@contact", cmbGender.SelectedItem)
Dim parEmail As New OleDb.OleDbParameter("@email", txtEmail.Text) ✓
Dim parCourse As New OleDb.OleDbParameter("@COURSEID", txtCourse.Text)
Dim parDate As New OleDb.OleDbParameter("@date", redate) ✓

command.Parameters.Add(parID) ✓
command.Parameters.Add(parName)
command.Parameters.Add(parContact) ✓
command.Parameters.Add(parGender)
command.Parameters.Add(parEmail) ✓
command.Parameters.Add(parCourse)
command.Parameters.Add(parDate) ✓
```
(8)

3.1.5
```
command.ExecuteNonQuery()✓
```
(2)

3.1.6
```
MessageBox.Show("Record was added successfully.", "Confirmation",
MessageBoxButtons.OK, MessageBoxIcon.Information) ✓
```
(2)

3.1.7
```
dbconnect.Close()
```
(1)
[25]

QUESTION 4

4.1.1 <link rel="stylesheet" href="styles.css" type="text/css"> (1)

4.1.2 (1)

4.1.3 ✓
 (2)

4.1.4
```
<div class="navigation">✓
 <ul class="nav">✓
    <li><a href="#">Home</a></li>✓
    <li><a href="#">Awareness</a></li>
    <li><a href="#">Contact Us</a></li>✓
 </ul>
  </div>
```
(4)

4.1.5 ✓
<h1>ENVIRONMENT AWARENESS DAY!</h1>✓ (2)

4.1.6 <form name="event"✓method="Post" action="mailto:environ@college.edu.za"
>✓ (2)

4.1.7
```
<table border="0">✓
<tr><td>Name:</td>
<td><input type="text"name="nam"></td>
</tr>✓
<tr>
<td>Surname:</td>
<td><input type="text"name="sname"></td>
</tr>
<tr>
<td>Contact:</td><td><input type="text"name="contact"></td>
</tr>
<tr>
<td>Enter Quantity: </td><td><input type="text"name="quant"size="6"></td>
</tr>
<tr>
<td>
Select your T-Shirt Size:
</td>✓
<td><select id="size">✓
<option value[0]> ✓Small</option>
<option value[1]>Medium</option>
<option value[2]>Large</option>
<option value[3]>X-Large</option>✓
</select>
</td>
</tr>
</table>
```
(6)

4.1.8
```
<fieldset>✓
<legend>
Select your T-Shirt Colour
</legend>✓
<p> <input type="radio" name="colour"> Red </br>  </p>✓
<p> <input type="radio" name="colour">Purple </br>  </p>✓
<p> <input type="radio" name="colour”>White </br>  </p>
<p> <input type="radio" name="colour">Blue</p>
</fieldset>
```
(4)

4.1.9
```
<table  border="0">
<tr>
<td>
<input type="submit"  value✓="Submit" onClick="Validate()">✓
</td>
<td>
<input type="reset" value="Clear" />✓
</td>
</tr>
</table>
```
(2)

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4.1.10
```
<div id="footer">✓
<p>
Insert YOUR EXAMINATION NUMBER
</p>
</div>
```
(1)
[25]

QUESTION 5

5.1
```
<script type="text/javascript">✓
function Validate()✓
```
(2)

5.2
```
var username = document.event.nam.value;✓
var usersname = document.event.sname.value;✓
var usercontact = document.event.contact.value;✓
var userquant = document.event.quant.value;✓
var isColorSelected= document.querySelector('input[name="colour"]: checked');✓
```
(5)

5.3
```
if (isNaN(userquant) || userquant == "") {✓
    alert("Please enter numeric values!");  ✓
    return false;
}
```
(2)

5.4
```
if (!isColorSelected) {✓
    alert("Please select a colour for your t-shirt!");  ✓
    return false;  ✓
}
```
(3)

5.5 Source code plus screen shot of web page
(1)
[13]

TOTAL: 100

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