**Programming Solutions**

**Programming Concept: (e.g. Nested IFs)**

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| **Q / TASK** | **Code** | **Console Output** | **Comments/Problems** |
| 1bi | If statement is a Boolean expression |  |  |
| 1bii | Case statements is when the variable meet the expectation the code start to run |  |  |
| 1biii | If statement: better use at data needed in range and Boolean and rational operation  Case statement better use at integer or equal to |  |  |
| 1biv | End Select |  |  |
|  | Dim month, day As Integer  month = InputBox("enter a month and get the number of days")  Select Case month  Case 1 Or 3 Or 5 Or 7 Or 8 Or 10 Or 12  MsgBox("there are 31 days")  Case 2  MsgBox("there are 28 days")  MsgBox("it is Feburary")  Case Else  MsgBox("there are 30 days")  End Select  Select Case month  Case 1  MsgBox("it is janaury")  Case 3  MsgBox("it is march")  Case 4  MsgBox("it is april")  Case 5  MsgBox("it is may")  Case 6  MsgBox("it is june")  Case 7  MsgBox("it is july")  Case 8  MsgBox("it is august")  Case 9  MsgBox("it is september")  Case 10  MsgBox("it is october")  Case 11  MsgBox("it is november")  Case 12  MsgBox("it is december")  End Select |  |  |
|  | Dim year As Integer  Dim div, century, fhundred As Single  Console.WriteLine("enter the year you want to know")  year = Console.ReadLine()  div = year Mod 4  century = year Mod 100  fhundred = year Mod 400  Select Case fhundred  Case 0  Console.WriteLine("it is a leap year")  Case Else  Select Case century  Case 0  Console.WriteLine("it is not a leap year")  Case Else  Console.WriteLine("it is a leap year")  End Select  End Select  Console.ReadLine() |  |  |
|  | Dim score As Integer  score = InputBox("what is ur score??")  Select Case score  Case Is >= 47  Console.WriteLine("you got A and your score is {0}", score)  Case 42 To 47  Console.WriteLine("you got B and your score is {0}", score)  Case 37 To 42  Console.WriteLine("you got C and your score is {0}", score)  Case 33 To 37  Console.WriteLine("you got D and your score is {0}", score)  Case 29 To 33  Console.WriteLine("you got E and your score is {0}", score)  Case Is < 29  Console.WriteLine("you got (?) and your score is {0}", score)  End Select  Console.WriteLine("thank you! ")  Console.ReadLine() |  |  |
|  | Const a = 220.0  Const b = 246.94  Const c = 261.63  Const d = 293.66  Const e = 329.63  Const f = 349.23  Const g = 392.0  Dim iput As Char  iput = "a"c  While True  Console.WriteLine("enter a note")  iput = Console.ReadLine()  If ((Char.IsLower(iput) = False) Or (Char.IsLetter(iput) = False)) Then  Console.WriteLine("enter a note")  iput = Console.ReadLine()  Else  Select Case iput  Case "a"  Console.Beep(a, 500)  Case "b"  Console.Beep(b, 500)  Case "c"  Console.Beep(c, 500)  Case "d"  Console.Beep(d, 500)  Case "e"  Console.Beep(e, 500)  Case "f"  Console.Beep(f, 500)  Case "g"  Console.Beep(g, 500)  End Select  End If  End While |  |  |

Note: Please make sure you save this document as ‘**if\_solution\_yourname.doc’**