**E115 – Programming and Data Analysis**

**Individual log sheet for Week 02**

1. Write a VBA subroutine that will fill in all the columns in the “Summary” sheet of staff\_list.xlsx (completed in Week 1 log sheet) with information of ALL staff in the company. Since there are 100 staff in the company, you should end up with 101 rows in the “Summary” sheet after your subroutine is run.

[*Hint: For… Next*]

Sub Populate\_Summary ()

Dim row As Integer

For row = 2 To 101

Range ("A" & row).Value = Sheets ("Staff Name List").Range ("A" & row).Value

Range ("B" & row).Value = Sheets ("Staff Name List").Range ("B" & row).Value

Range ("C" & row).Value = "Customer service"

Range ("D" & row).Value = "Dealing with difficult people"

If Sheets ("Staff Name List").Range ("D" & row).Value = "Quality control" Then

Range ("E" & row).Value = "Six Sigma Jumpstart Training"

ElseIf Sheets ("Staff Name List").Range ("D" & row).Value = "Sales and marketing" Then

Range ("E" & row).Value = "Digital and social media marketing strategies"

ElseIf Sheets ("Staff Name List").Range ("D" & row).Value = "Production" Then

Range ("E" & row).Value = "Workplace Safety and Health (Level 1)"

End If

Range ("F" & row).Value = Range ("B" & row).Value + 3 \* 365

Next

End Sub

1. Randomly select one name from the “Staff name list” sheet in Staff\_list.xlsx and fill in the table below. Each member in your team should choose a different name to work on.

The list of courses that the staff has attended can be found in the “Attendance list” sheet in Staff\_list.xlsx.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Deadline to attend course** | **Course that this staff did not attend (if any)** | **Course that this staff did not attend (if any)** | **Course that this staff did not attend (if any)** |
| Anthony Salazar | 23/8/2010 |  |  |  |

1. Add new code into your subroutine in Question 1 so that it will highlight in
2. red for courses that the staff has not attended after the deadline has passed, and
3. yellow for courses that the staff has attended but only after the deadline has passed.

*Possible strategy:*

*Step 0: Set all cells in Columns C to E in “Summary” sheet to be red.*

*Step 1: Take note of the name of the first staff under Column A in “Summary” sheet and save it in a variable known as “staff”.*

*Step 2: Go to the “Attendance list” sheet and go down the list to look for the name that corresponds to “staff”.*

*Step 3: Once found, note down the name of the course that he has attended and the date that he attended it by saving them into the variable known as “course”.*

*Step 4: Go back to the “Summary” sheet and look for the course in columns C to E.*

*Step 5: When found, compare the course date and dead line. If course date is later than dead line, change the colour of that cell to “yellow”. Otherwise change colour to “none”.*

*Step 6: If last row in Summary sheet is not yet reached, go back to Step 2 and continue.*

Sub Check\_Attendance()

Dim staff, course As String

Dim SummaryRow, SummaryLastRow, AttendanceRow, AttendanceLastRow As Integer

SummaryLastRow = Sheets("Summary").Range("A1").End(xlDown).row

AttendanceLastRow = Sheets("Attendance list").Range("A1").End(xlDown).row

For SummaryRow = 2 To SummaryLastRow

If Not IsEmpty(Sheets("Summary").Range("C" & SummaryRow)) Then

Sheets("Summary").Range("C" & SummaryRow).Interior.Color = RGB(255, 0, 0)

End If

If Not IsEmpty(Sheets("Summary").Range("D" & SummaryRow)) Then

Sheets("Summary").Range("D" & SummaryRow).Interior.Color = RGB(255, 0, 0)

End If

If Not IsEmpty(Sheets("Summary").Range("E" & SummaryRow)) Then

Sheets("Summary").Range("E" & SummaryRow).Interior.Color = RGB(255, 0, 0)

End If

staff = Sheets("Summary").Range("A" & SummaryRow).Value

For AttendanceRow = 2 To AttendanceLastRow

If staff = Sheets("Attendance list").Range("A" & AttendanceRow).Value Then

course = Sheets("Attendance list").Range("B" & AttendanceRow).Value

If course = Sheets("Summary").Range("C" & SummaryRow).Value Then

Sheets("Summary").Range("C" & SummaryRow).Cells.Interior.Pattern = xlNone

ElseIf course = Sheets("Summary").Range("D" & SummaryRow).Value Then

Sheets("Summary").Range("D" & SummaryRow).Cells.Interior.Pattern = xlNone

ElseIf course = Sheets("Summary").Range("E" & SummaryRow).Value Then

Sheets("Summary").Range("E" & SummaryRow).Cells.Interior.Pattern = xlNone

Else

MsgBox (staff & " attended the course " & course & " that is not required.")

End If

End If

Next

Next

End Sub