

## HOMWORK 2 - MICROSOFT EXCEL

Submission deadline: before **23:00 pm on Friday 19 November 2021**

This homework has **two parts**:

### PART 1. Modeling and Data analysis (5 points)

**Objective:** To establish a model in Excel and use the features of Solver, Goal Seek, Data Table to solve the problem and analyze the data

#### Instructions:

- 1) Access to BkeL system at Homework\_2. Got the file **List of Students.pdf**
- 2) Take a look at the list and take the **number # of your Folder** (e.g. 01 or 02).
- 3) Go to the appropriate # of folder, download 2 files to your computer: **Model analysis.xlsx** and **Chart sample.pdf**.
- 4) Change the file name to **HW2\_Part1\_Student ID\_your first name.xlsx**
- 5) Open the file and select sheet "Problem", read the contents.
- 6) Answer the questions in sheet "Answers"
- 7) For question d), create a chart and move the chart as a New Sheet Chart. Format the chart as follows:
  - The chart title is **Relationship: TR, TC, P and Q**
  - Format the chart exactly as the **Chart sample.pdf**
- 8) Save your Excel file, then submit to BkeL. Remember to submit at your **# of Folder**

### PART 2. Working with list (5 points)

**Objective:** To work with a long list using Defined Name, Sort, Subtotal, PivotTable, Vlookup function.

#### Instructions:

1. Access to BkeL, Homework\_2, download 2 files to your computer:

<b>Datafile.xlsx</b>
<b>ID List.pdf</b>

2. Open file **ID List.pdf**, have a look at your ID number and take the number in "num" column = x. For example 2052148 has a number of 11, so  $x=11$
3. Change the file name **Datafile.xlsx** to **HW2\_Part2\_Student ID\_your first name.xlsx**
4. Open the Excel file, look at the column "num", go to the record that has number x. Change the "quantity" of that record = quantity plus x.  
(For example I have the number  $x=11$  in step 2. In the Excel file, I go to the record that has num of 11, the quantity currently is 36, I change it to  $= 36 + 11 = 47$ )
5. Select the whole table, the range from A1:I245, go to menu Formulas, define this range with the name is of **your first name**.
6. Sort the list by Region (from A to Z) then second level by City (from Z to A). Copy this sheet to a new sheet, name the new sheet as **Q6**
7. Go back Sheet1, Sort the list by Product ascendingly, use Subtotal to show the sum of quantity for each product type. Show only level 2 of the Subtotal. Copy this sheet to a new sheet, name the new sheet as **Q7**.
8. Use PivotTable to present the data for the list. Create the PivotTable in a New sheet:

- City in the columns, Category in the rows, Region in the Filter, TotalPrice in the Values
- Show the average of TotalPrice, format the values in currency \$, 0 decimal
- Only show the cities in the West (region)
- Name the new sheet as **Q8**.

Region	West			
Average of TotalPrice	Column Labels			
Row Labels	Los Angeles	San Diego	Grand Total	
Bars	\$120	\$86	\$107	
Cookies	\$184	\$131	\$159	
Crackers	\$73	\$84	\$79	
Snacks	\$87	\$56	\$78	
Grand Total	\$140	\$105	\$126	

*(note: the numbers may be different from your table)*

- Insert a PivotChart in the sheet Q8, shape the chart in range A11:F27. Write a short paragraph (3-4 sentences) in Cell A29 to describe this chart.
- Take a look at sheet "Vlook",
  - Use the function =RANDBETWEEN(1,245) to generate the values for cells A2 to A21
  - Use the function VLOOKUP to take the values in Sheet1 to insert in the green area according to **num** values. Recalculate the TotalPrice2 in yellow area. Remember to use the defined name of the list created in step 5 as reference address in your function.
- Save the Workbook, then submit the file to Bkel, at **Submission Excel Part 2**

Good Luck