

MgtOp 470—Business Modeling with Spreadsheets
Washington State University
Spring 2020
Problem Set 1
Due: Feb. 25, midnight

Feel free to put questions that can be combined into the same workbook. For question 4, retrieve and modify the appropriate website file and send in the modified file. E-mail your completed files to gihan.mgtop470@gmail.com. This assignment may be completed in a group of up to four people. Please state in the email message the names of all persons turning in this assignment. Please put “MgtOp 470 Homework 1” followed by the name of the person who sent the email in the Subject of the email.

1. (4 points)

Open a workbook, get into the VBE, insert a module, and enter the following code:

```
Public Sub ErrorHunt()  
Dim myName as Double, nMiles as Long  
myName = “Eddy”  
nMiles=823.67  
MsgBox myName & “ traveled ” & nMiles & “ miles from Pullman to Chico.”  
End Sub
```

There are two problems here. Explain what they are and then fix them.

2. (15 points)

Write a program, and store it in a Sub called *TravelExp*, that does the following:

- (a) It asks for the user’s first name and stores it in *FName*;
- (b) It asks for the user’s last name and stores it in *LName*;
- (c) It asks for the city that the user recently visited and stores it in *VisCity*;
- (d) It asks for user’s cost for flight tickets and stores it in *Flight*;
- (e) It asks for user’s cost for food and stores it in *Food*;
- (f) It asks for user’s cost per day for hotel rooms and stores it in *Hotel*;
- (g) It asks for how many days the user stayed in the city and stores it in *Stay*;
- (h) It calculates the total hotel cost during the trip and stores it in *TotHotel*;
- (i) It calculates the total cost for the trip and stores it in *TotalCost*;
- (j) It displays a message such as "Jimmy Edison recently visited Philadelphia. The flight cost \$300.56. Total food expense was \$500.00. Jimmy stayed in Philadelphia for 5 days and spent \$700.00 total on lodging. The total cost for this trip was \$1500.56." Make sure there is an Option Explicit line at the top of the module and that you declare all of your variables appropriately.

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3. (4 points)

It is difficult to know all of the many VBA commands to perform certain tasks in Excel. An alternative to looking up how to do something in the extensive and sometimes cumbersome VBA help facility is to record a macro to perform the task that you want to code in VBA. Then edit the macro to see the VBA code that the macro created. Let's try a simple one.

Record a macro that sets the column width for the whole sheet to 25 and that also italicizes the whole sheet. Then stop recording. Then go to **→View→Macros→View Macros**. Select the macro that you just recorded and click on **Edit**. You will see the VBA code that the macro generated to perform the designated tasks. With that knowledge, enter the Visual Basic Editor, and write your own sub called "Nineteen" that will set the column width for the whole sheet to 19 and also turns on boldface for the whole sheet. You may copy-paste as much as desired.

4. (10 points)

The file **MonthlySales.xlsx** has monthly sales data for 50 regions. Write a sub that reports the minimum, maximum, mean, and median of the sales data for *January* in a message box. Use Excel's functions (with WorksheetFunction) to do the arithmetic. Please have your message box display the four pieces of information (with appropriate descriptions) on four separate lines.

5. (5 points)

Format Cell B3 to be number with 5 decimal places. Create a sub called RandomNum that enters a random decimal number between 0 and 1 into Cell B3. Try these two options. Option A: use Excel's **RAND()** function (with WorksheetFunction) to set the Value property of the cell, does it work? Option B: set the Value property by using the VBA's **rnd** function, does it work? Make a 1-2 sentence comment on your findings.

6. (12 points)

Write a program, and store it in a Sub called *HelloString*, that does the following:

- (a) It asks the user for a word with at least 9 characters and stores it in *BigWord*;
- (b) It displays a message indicating the number of characters in the word;
- (c) It displays a message showing the first 3 characters of the word;
- (d) It displays a message showing the last 3 characters of the word;
- (e) It displays a message showing the sixth character in the word;
- (f) It displays a message showing all but the first two and last two characters in the word;
- (g) It displays the word in reverse order.