1

30 pts. Your instructor has been told that these finals cannot be an official Marc Rauer test unless the character James Bond or the author Ian Fleming appears in one of the problems. Considering this, we would like you to access the file, **The Old Forge School For Cats.2012.doc**, which should be on your disk or on my web site. Please read the document carefully while we tell you that after Pussy Galore (aka Pussianne Galore) was saved by the aforementioned James Bond in Goldfinger, she enrolled in college, got her EDd, became a famous Educator and later an Educational administrator and it is she who has asked for your help.

1. Bring the word table, indicating the students and their results, into an excel spreadsheet. Set the columns appropriately in one of the ways we did this in class.

You should use the new table construct on this spreadsheet:

1. Rename this sheet where this information resides as OFSC
2. We need a calculation here. Read this carefully. The **1st test** counts for 30 percent (30%) of the mark. The **2nd test** also counts for 30%. The **3rd test** counts for 35% and a Y in **attendance** counts for 5%. An N in **attendance** counts as 0%. Using an **if** statement for the attendance, determine the average grade for each of the students for the term. Your numbers should be between 0 and 100.
3. Now, do a sort to indicate the best student in the school. Fill in the blank as to who is the best student: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ grade \_\_\_\_\_.
4. Use the table numeric filter commands to display the top 10 students as you have determined in the final grade calculation you did above.

***On to pivot tables.***

1. Run a pivot table indicating the average of the student final grades for the different **classes** (Freshman, sophomore, junior and senior). Name this sheet **OFSC pivot table**
2. Sort the above pivot table result showing the best **class** first. Set the average final grades to 2 decimal points.
3. Run a bar chart to show this visually.
4. Go back to your underlying data on the OFSC sheet.
5. Run another pivot table again dealing with classes but breaking the results further down to factor in **attendance (in addition to class as indicated above).** This will be a two-dimensional pivot table.

Save this file and before the test ends, send this file to [**777rauer@voicenet.com**](mailto:777rauer@voicenet.com).

2

40 Pts. While he doesn't do this anymore, your instructor during the '90s generally was teaching Thursday nights and never watched one of TV's most famous series. He was re-introduced to this series he never watched by his physical exercise trainer, Rob, who just happens to have a photographic memory per this series (as well as being a fabulous trainer). Of course, we are talking about Seinfeld. This series ran on NBC from 1989 through 1998.

Your instructor has been rectifying this omission in his knowledge. To that end, take a look at the **Seinfeld.accdb** access database. Here you will see a list of every Seinfeld episode as an access table designated as Seinfeld.

1. Create a new Excel file by converting this table into an excel spreadsheet.
2. Set the data of the Seinfeld sheet to the new table construct as shown in class. Now, through the use of the table and its properties of what is called filtering, indicate in alphabetic order by first name, all the writers (or group of writers) that were credited in this show in the column **Written By**

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We need to add some mathematics on this spreadsheet: mathematics that you should be able to do given that this is a college class. Notice that there is a **year** column indicated. In 1989, the country's population was 247 million. We need to work on an approximation to calculate US population (in millions) in a new column. . Here's what you are to do in creating this column, **US Population**.

1. Create a formula that determines the number of years that are offset from 1989, 1989 is 0 years offset. 1995 is 6 years offset. Take this offset number, multiply by 3 and add to 247. Here's some examples: 1991 is 2 years offset (1991-1989), 2 \*3 equals 6 + 247 which equals 253. 1995 is 6 years offset (1995-1989), 6\*3 equals 18+247 which is equal to 265. You should be able to create a formula (hint: (year-1989)\*3+247) that you can apply throughout this new column to indicate approximate US population for the year indicated. Note: Keep population in millions therefore 247,000,000 is represented as 247
2. Now, using the column created above pertaining to the approximate US Population, calculate the number of Americans watching this show on an episode by episode level. You will notice that there is a column designated as **population percentage**. Multiple this column as a percentage against the approximate US population that you calculated above and set as 2 decimal points. Call this column **Seinfeld Watchers.** Remember, this is a percentage so you will probably have to divide by 100
3. Using table properties(hint:the total row) as shown in class, what was the average number of **Seinfeld Watchers** for the series throughout the years. (Hint: activating total row in table design should be a start to answering this). Write your answer here \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Make sure to indicate your answer here as you will be changing the spreadsheet with the next question.

1. Using what you did above, what was the average number of viewers for those episodes **directed by** Ray Knight. You are to do this through this spreadsheet using the filter and total line property as shown in class. Leave this sheet like this as you do the rest of this problem.

The next part deals with pivot tables) you are to create. In dealing with this, let the program create a new sheet for each pivot table.

1. Create a pivot table using this Seinfeld data. First is a 1D pivot table Show the **Seinfeld Watchers** (summing of this is defaulted) that watched shows for each of the Directors indicated in **Directors.** Sort the result from high to low
2. Create a pivot bar chart on this pivot table.
3. Create a second pivot chart showing average number of Seinfeld watchers (note:average) with the directors as the Row items and the writers as the column items. You should recognize this as a 2D pivot table
4. Format the decimal points appropriately and sort on the grand total showing highest average first.

Save this workbook to your disk with your name as part of the name of the file and that this is problem 2. You can also add that this is about Seinfeld, if you like. Send this as an attachment by Email to **777rauer@voicenet.com**

3

30 total pts. Open the **missing art1.xlsx** file that is either on your computer or on my web site.

1. Notice there are two tabs on this spreadsheet: **Data** contains a list of the art works. Rename this sheet as artworks and color the tab as red.
2. In class we had several ways of summing columns. There are two columns that could be summed here: **Estimated Value** and **Reward**. Use the autosum option to sum both columns.
3. Now, create a new row, off from this "table", indicating the average, max and min for Estimated value and reward. Use the excel functions that we studied that would be relevant to this.
4. Set the numbers to two decimal points.

Explain the problem we would have if you attempted to sort. Indicate ways to resolve this problem

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These are the world's highest valued missing art pieces. Notice that each art work has a **painter** and a **genre** associated with it not to mention an **estimated value** and **reward**. We want to determine the average of the **estimated value** for each **genre**. Notice that I have said **genre**! Look at that column on both sheets as we move into pivot tables.!

1. Create a pivot table on a separate sheet that gives average(remember, average) **estimated value** by **Genre**.
2. Sort in descending order in terms of average **estimated value**.
3. Set to two decimal places and apply dollar signs for average **estimated value** and use an appropriate format on the pivot table.
4. Create a pivot bar chart on **estimated value**.

If you were to change a value in one of the line items on the **Data** sheet, it would not be immediately integrated into the pivot table per the calculations. Explain how to get the pivot table to recognize a change in the underlying sheet. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In the pivot table you created a bar chart. What other charts would be applicable to this problem and explain the advantages and disadvantages of each

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