Excel Lab 3 - Sort, Subtotal, Filter & Charts

BE SURE TO FOLLOW EACH OF THE STEPS IN THE DIRECTIONS.

Reference if Needed
• Material presented in the associated Tour
• GCFLearnFree.org lessons: http://www.gcflearnfree.org/excel2013

Assignment – Basic Tools for Data Analysis

Skills
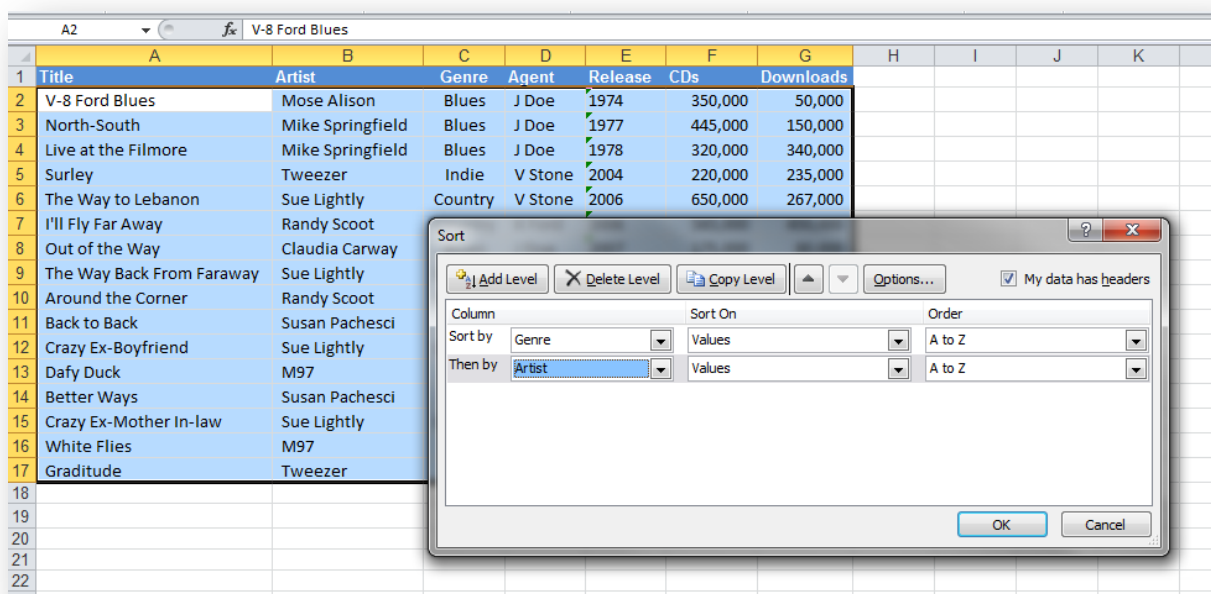Use of the following Excel features for basic data analysis – answering business related questions, e.g.:
• Sort
• Subtotal
• Filter
• Charts

Assignment

Part 1 – Sort and Make Copies of the Spreadsheet
Question: What recordings are the best-selling CDs, downloads and combined for each genre?
1. Download https://www.cs.mtsu.edu/~hcarroll/1150/tours/msOffice/excelTour3.xlsx and save it as *excelTour3-YourName.xlsx*.
2. Select the range A1-G17 (click and drag from the center of cell A1 to the center of cell G17 – be sure it's the fat 3D looking plus sign).
3. Sort the spreadsheet on the Genre column, then the Artist column (see picture below). Use Custom sort option, ensure that "My data has headers" is selected, and use "Sort A-Z". Genre should be the first level and the second level (Add Level) Artist. This will help us get an Artist view within Genre. The Sort command is on both the Home and Data tabs.

4. Make three copies of the RecordingsRaw sheet (right-click on the worksheet sheet, bottom left). Label the 3 copied sheets as Analysis_1, Analysis_2 and Analysis_3.
5. Save the Workbook (hit Continue if the Excel Compatibility Checker window pops up).
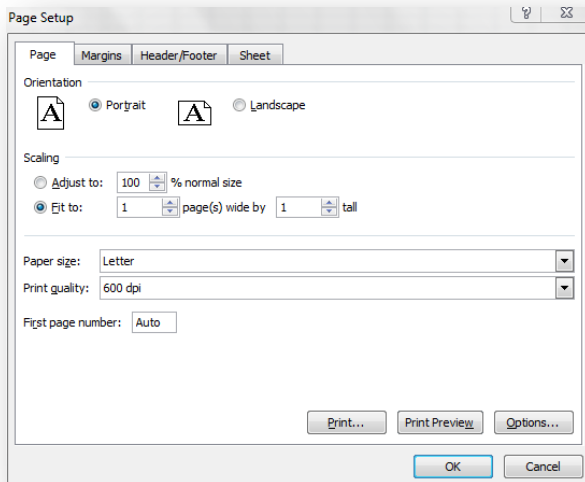
Part 2 – Sales Performance by Genre

Perform the following analyses on the Analysis_1.

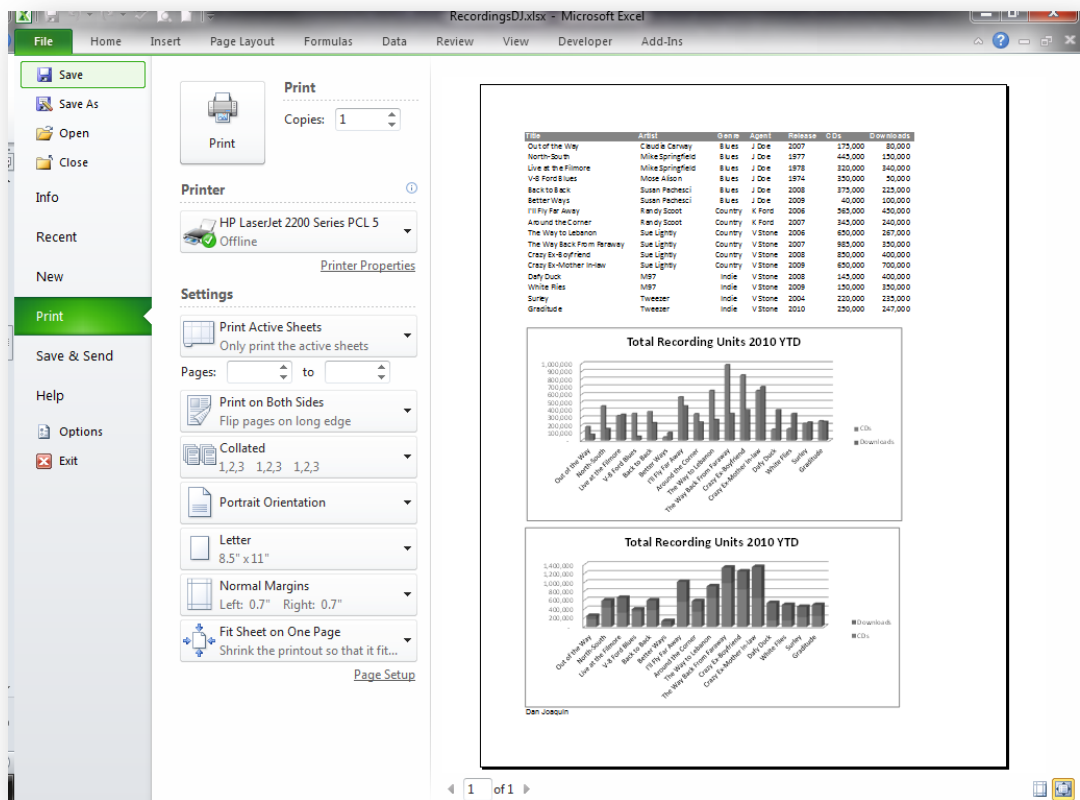This chart gives you a view of the performance of each title by media (CDs and Downloads).
1. Select range A1-A17, hold CTRL and then select and F1-G17.
2. Insert a 3D Column chart (Insert tab on the ribbon, choose column and then 3D Clustered column). After the chart is created, on the Design tab select Layout 1.
3. Change the Chart Title to **CDs and Downloads 2010 YTD.**
4. You may need to expand the horizontal size of the chart to see all of the axis titles. The song title names will be slanted. Click and drag on a corner of the chart to resize. Move the whole chart so it is under the spreadsheet numbers.

This next chart will give you a cumulative view of a title regardless of the media.
5. Select range A1-A17 and F1-G17.
6. Insert 3D Stacked Column Chart, then on the Design tab select chart Layout 1.
7. You may need to expand the horizontal and vertical sizes of the chart to see all of the titles.
8. Change the Chart Title to **Total Recording Units 2010 YTD.**
9. Arrange the charts as shown below
10. Go to the Page Layout tab on the Ribbon, select the Page Setup launcher button, select the circle - Fit to page(1) wide and tall

11. Your output should look as follows. Go to the File tab, Print to see if the following is how your output will look. You don't need to print it.
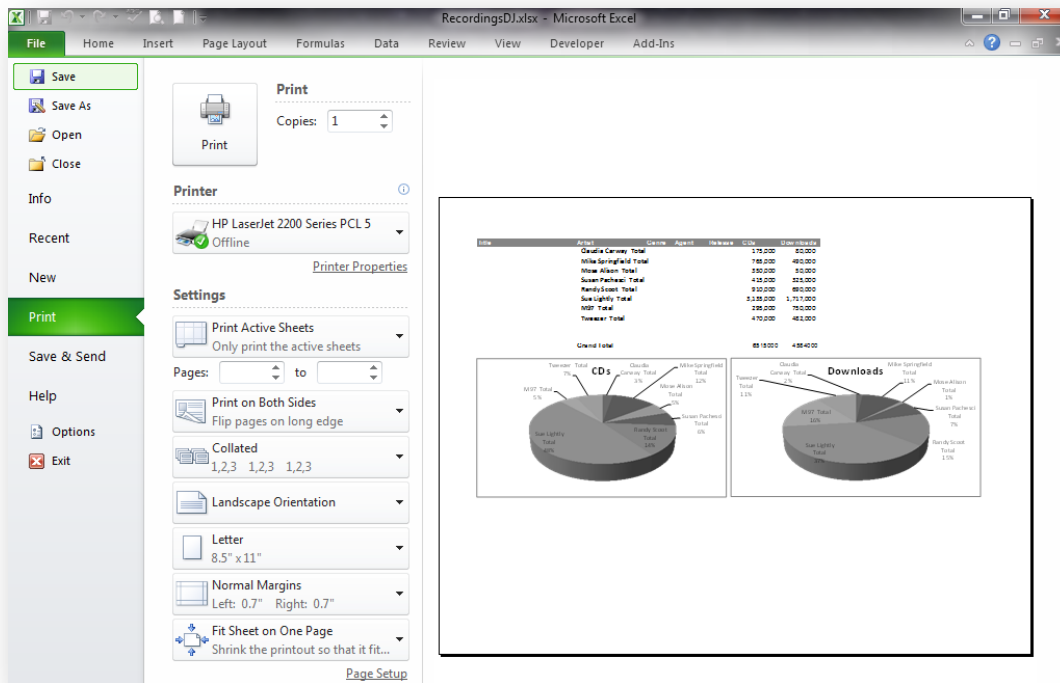
12. Save your workbook.
13. Answer the first three questions on the Questions sheet:
    a. What is the Best Selling CD Title?
    b. What is the Best Selling Download Title?
    c. What affect did the Download have on the overall success of the title *Crazy Ex-Mother In-Law* versus *The Way Back from Far Away*? (No one right answer really, just your opinion)

Part 3 – Title Media Sales Comparison

Perform the following analyses on the Analysis_2 sheet.

1. Go to the Analysis_2 sheet.
2. Select all the data A1-G17. On the Data sheet on the ribbon, click Subtotal. Perform a Subtotal on the spreadsheet specifying "At each change in" **Artist**, Use function **Sum**, add subtotal to **CDs** and **Downloads**, hit OK.

3. Collapse the results to just show the subtotals by selecting the 2 box at the upper left of the spreadsheet (see result picture below)

4. Select the range B1–B25 (be sure to start at B1), hold CTRL and select F1–F25
5. Insert a 3D Pie Chart, then choose Layout 1 on the design tab on the ribbon.
6. Move the chart to the far left upper corner of the chart at approximately A29.
7. Select the range B1–B25, hold CTRL and select G1–G25.
8. Insert a 3D Pie Chart, Layout 1.
9. Move it just to the right of the prior chart.
10. Ensure all of the chart labels are clearly visible. You may need to increase their vertical height a bit.
11. Go to Page Layout tab, Page Setup launcher and set the orientation to Landscape and Fit to 1 page (If these features are greyed out that means the chart was selected, go back to the spreadsheet and deselect the chart by clicking in a cell).
12. Go to the File Tab, Print, the print view should look like the following. Don't print.
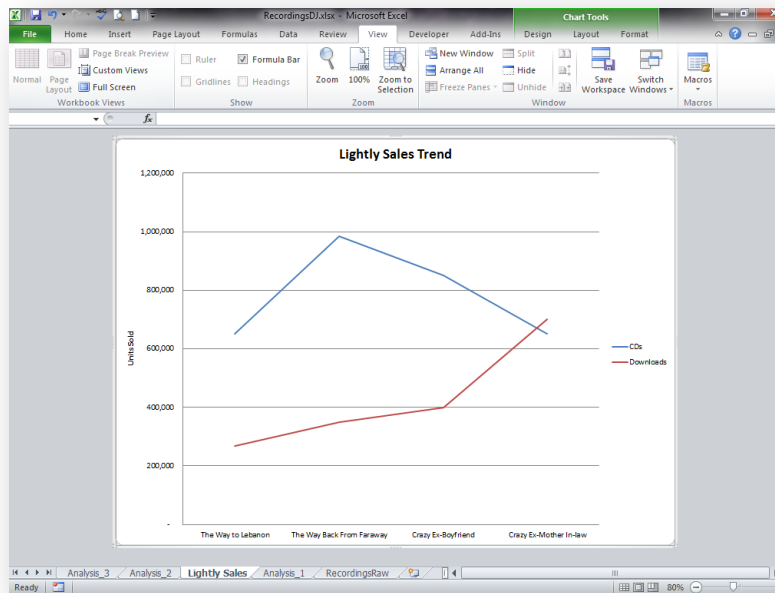
13. Save your workbook.
14. Answer the questions for Part 3:
    a. Which Artist has the biggest boost in sales through Downloads (largest difference between 2 charts)?
    b. Which Artist has the smallest boost in sales through Downloads (smallest difference between 2 charts)?
    c. Any ideas on why that might be the case (just an opinion)?

Part 4– Artist Sales Trend

Perform the following analyses on the Analysis_3 sheet.

1. Go to Analysis_3 sheet.
2. Select range A1-G17.
3. On either the Home or Data tab select Filter tool.
   You'll note that a down arrow is inserted to the right side of the Row 1 cells. This is the Filter indicator. Filters can be applied to all columns or any selection of columns. It is a toggle command. That is if you select the Filter command again it turns all the filters off. Note that you have the Filter tool for your use on any of the columns.
4. Click the Filter indicator (down arrow) in the Artist column.
5. Click Select All box to turn **off** all of the selections. Only data corresponding to the values selected will be visible when the filter is applied. Click the box next to Sue Lightly then hit OK.
6. Select range A1-A13 and F1-G13
7. Insert a 2D Line chart, Layout 1 (Don't worry if your values don't match the picture below).
8. Set the Chart Title to **Lightly Sales Trend** and the Vertical axis to **Units Sold.**
9. Move the chart (the tool is located at the right of the Design tab ribbon) to a new sheet that you name Lightly Sales. Note that the chart must be selected to do this step.

10. Save the workbook.
11. Answer the questions for Part 4:
    a. (Note that the Titles are in release date order.) What is at least one trend that we need to be aware of in regards to Sue's sales?
    b. What change in trend occurred at the release of the *Crazy Ex-Mother In-Law* title?
12. Change the Analysis_3 and RecordingsRaw sheets to be in Landscape Orientation.
13. Save the workbook.
14. Close Excel.
15. Submit your e*xcelTour3YourName.xlsx* file to the "MS Excel III" D2L dropbox at elearn.mtsu.edu.
    Late submissions **will be ignored**. If you re-submit an assignment, only the latest resubmission will be graded.