
2023 U.S. Information Technology Collegiate Conference

Microsoft Office Solutions Competition

Do not put your name(s) or your school's name on anything that you submit. Doing so will result in disqualification of your team. The only identifying information you should use is your team number.

Problem Statement

You are working as an analyst processing data and reporting based on the contents of the Consumer Complaint Database from the Consumer Financial Protection Bureau. Your task is to process the contents of the data file below and provide your supervisor with a summary analysis, report, and presentation regarding consumer complaints in the U.S. by region, sub-products and issues, and other variables. Your goal is to identify potential problems so that policies and informational materials can be shared with consumers.

Assets

Initial Data file: Download the [CFPB Complaints 2020-23 StartFile.csv](#) data file. Open to review its contents, **save it as CFPB Complaints GroupNumber.xlsx** so as not to lose your work. *A csv is a flat file, any analysis you do will be lost if the file is not saved as an xlsx file.*

Supplement: Also download the list of states and US Regions: [Regions List.txt](#) (a Tab-Separated Variable File) you will use as part of your analysis. *Source is: <http://bit.ly/usregionswiki>.

Deliverables

(3 files in all *with appropriate content* for maximum chances to score the win!)

1. Excel File with 7 sheets or tabs in the end containing Data, PivotTables, PivotCharts, and appropriate conditional formats, slicers to show that you have processed the data according to the directions on the next few pages.
2. Word File with appropriate theme and contents to inform your supervisor of key issues evident in your data with 2-4 PivotTable outputs and 2-4 PivotCharts embedded into the document.
3. PowerPoint File with corresponding theme and contents to highlight and visualize key elements of your Word report.

The next few pages detail steps, expectations and objectives. You will be using your Microsoft Office Suite skills to complete as many components of the project as you can to the best of your ability. There are many things to do but remember, this is a contest and we are seeking the team that truly knows what they are doing and rises to the top of the heap to take the win!

General Hints – Make your work aesthetically pleasing and impressive!

Excel:

- Worksheet header with the name of the sheet in the center, adjust/create titles as appropriate, banded rows, slicers that match your design when needed
- Each worksheet tab is clearly named/labeled based on content and formatted for printing (1 page wide x 1 page tall in most cases where appropriate).
- Any percentages should be expressed as a percent with 2 decimal places.

Word:

- Select and customize an existing MS Word Report Template.
- Use heading levels, proper page breaks, page numbers, descriptive headers and footers.
- Spell check your report, include references as needed.

PowerPoint:

- Have your PowerPoint design match your MS Word Report Template – modify the slide master, not the individual slides.
- Select key items from your MS Word report and use high impact text on your slides. Don't pack your slides full of text.
- Include visuals, PivotCharts to accompany your major points.
- Make sure your PowerPoint abides by the "7 x 7 Rule" of PowerPoint.

Work to Complete In Your Excel Workbook:

- (1) Insert a PivotTable to show *Issues* with complaints Shown As % of Grand Total, sort in descending order. Show the top 10 only. Rename sheet to Issues.
- (2) Insert a PivotTable and use the *Issue* with the most Complaint IDs from (1) as your Filter to show a count of Complaint IDs by Company. Show complaints as % of Grand Total. Sort in descending order. Show the top 10 only. Rename sheet to ByCompany.
- (3) In the By Company sheet, add a clustered column style PivotChart (for the top 10 only). Remove the legend, add data callouts, Title the chart to "The #1 Issue by Company (Top 10 only)". Adjust the font size and layout so that all callouts are legible.
- (4) Insert a PivotTable to count the Complaint IDs for each *Tags* category for each *Submitted via* method in a tabular format, show as % of Grand Total. Add conditional formatting to highlight interesting data points. Rename the sheet to Tags.
- (5) Add a PivotChart showcasing your findings with appropriate styles
- (6) Import the supplemental tab separated variable data file *Regions_List.txt* to a new tab called "StateTable" and prepare it to be used as a State Lookup table
- (7) Insert a new column into your workbook called Region. Lookup and Return the Region Name corresponding with each state using your new *StateTable* tab. Also use an appropriate function to replace #N/A errors with "Not applicable" text.
- (8) Insert a PivotTable to create a breakdown for the number of Complaints by year for the 3 years represented in the data. Add *Regions* as Columns. Insert a PivotChart to show trendlines of the volume of Complaints by Region. Add an appropriate Chart Title and rename the sheet *ByRegionOverTime*.

- (9) Insert a PivotTable to showcase the South region only. Sort the data to show the Issues with the most complaints at the top as a % of Grand Total. Add a slicer, in Dark Style 6, for Regions, rename the sheet to South.
- (10) Up next, you will create a Word document using your PivotTable outputs and PivotCharts. Add additional details about a single region or multiple regions for comparison to your Excel workbook in a sheet you name, rename that ExtraWork.

Work to Complete In Your Word Document Based on You Excel File:

- (1) Add an appropriate theme to your document, edit the cover page to show your group number.
- (2) On a new page, add a summary paragraph describing your data set, its source, and its potential uses in 3-4 complete sentences.
- (3) On a new page, add a screenshot of your PivotTable output from the Issues sheet and describe it in 3-4 sentences below the image.
- (4) On a new page, add a screenshot of your PivotChart from the By Company sheet and describe it in 3-4 sentences below the image.
- (5) On a new page, add a screenshot of your PivotTable output from the Tags sheet and describe it in 3-4 sentences below the image.
- (6) On a new page, add a screenshot of your PivotTable output from the By Region Over Time sheet and describe it in 3-4 sentences below the image.
- (7) On a new page, add a screenshot of your PivotTable output and the slicer from the South sheet and describe it in 3-4 sentences below the image.
- (8) Make sure your narrative is clear and free of typos.

Work to Complete In Your PowerPoint Based on You Excel File and Word Document:

- (1) Add a title slide and add your Group Number and the Competition's name. (Do not add your names.) Edit the slide master to show your group's number.
- (2) On a new slide, add an agenda for your presentation.
- (3) On a new slide, Summarize some of your observations. Use keywords from your Word document narrative to create a simple but high impact outline of what you found in your data. Add no more than 2 PivotTables and 2 PivotCharts onto your slides and add descriptive titles above them.
- (4) On a new slide: Include references to your resources.
- (5) Make sure your work is clear, free of typos, and has no more than 6 slides.