Module 1 Challenge

New Attempt

Due Jan 10 by 12:59am   **Points** 100   **Submitting** a text entry box or a website url

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Welcome to the first weekly challenge in this course. Your weekly challenges provide an opportunity for you to build on the skills you have learned in the module. These challenges are required and will be graded.

In this challenge, you will continue to exercise your Excel prowess! This time, you will create two new analyses: outcomes based on goals and outcomes based on launch date.

Background

Louise's play *Fever* came close to its fundraising goal in a short amount of time. Now, she wants to know how different campaigns fared in relation to their launch dates and their funding goals. Using the Kickstarter dataset that you've already combed through, you'll visualize campaign outcomes based on their launch dates and their funding goals. You'll then submit a written report based on your analysis and the visualizations you create.

What You're Creating

This new assignment consists of two technical analysis deliverables and a written report to deliver your results. You will submit the following:

- Deliverable 1: Outcomes Based on Launch Date Chart

- Deliverable 2: Outcomes Based on Goals Chart

- Deliverable 3: A written analysis of the results (README.md)

Files

Use the link below to download a GitHub Markdown template for your Deliverable 3 written analysis.

- **Download the Written_Report_Template.md README Template** **(https://2u-data-curriculum-team.s3.amazonaws.com/dataviz-online/module_1/Written_Report_Template.md)**

Deliverable 1: Outcomes Based on Launch Date Chart (50 points)

Deliverable 1 Instructions

Use your knowledge of pivot tables and graphing in Excel to visualize campaign outcomes ("successful," "failed," and "canceled") based on launch date.

REWIND

For this deliverable, you've already done the following in this module:

- **Lesson 1.2.5**: Create a new column based on data in another column.

- **Lesson 1.3.1**: Create a pivot table.

- **Lesson 1.3.1**: Filter a pivot table based on "Parent Category."

- **Lesson 1.3.2**: Create a chart from a pivot table.

- **Lesson 1.3.2**: Annotate and save charts as a PNG.

- **Lesson 1.3.3.**: Reducing the number of items in the Rows field to a single item.

1. Rename the `StarterBook.xlsx` file you have been working with in this module: `Kickstarter_Challenge.xlsx`.

2. Create a folder called "resources" to hold the PNGs of the two charts you will create.

3. In the `Kickstarter_Challenge.xlsx` workbook, create a new column labeled "Years."

4. In the "Years" column, use the `YEAR()` function to extract the year from the "Date Created Conversion" column.

If you'd like a hint on how to use the `YEAR()` function, that's totally okay. If not, that's great too. You can always revisit this later if you change your mind.

SHOW HINT

5. Create a pivot table from the KickStarter worksheet, and place the pivot table in a new sheet.

6. Label the sheet "Theater Outcomes by Launch Date."

7. Filter the pivot table based on "Parent Category" and "Years."

8. Place the appropriate pivot table fields in the columns, rows, and values.

9. Filter the column labels to show only "successful," "failed," and "canceled."

10. Confirm that your pivot table looks like this:

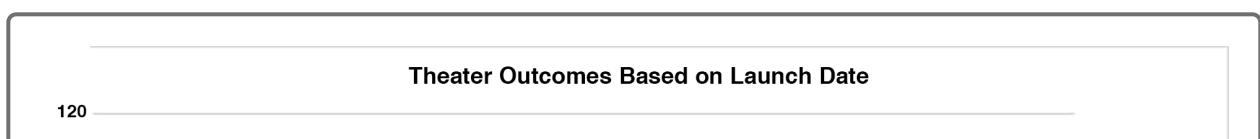|	A	B	C	D	E
1	Parent Category	(All)			
2	Years	(All)			
3					
4	Count of outcomes	Column Labels			
5	Row Labels	canceled	failed	successful	Grand Total
6	Jan		34	149	182	365
7	Feb		27	106	202	335
8	Mar		28	108	180	316
9	Apr		27	102	192	321
10	May		26	126	234	386
11	Jun		27	147	211	385
12	Jul		43	150	194	387
13	Aug		33	134	166	333
14	Sep		24	127	147	298
15	Oct		20	149	183	352
16	Nov		37	114	183	334
17	Dec		23	118	111	252
18	Grand Total		349	1530	2185	4064

You may need to group the "Row Labels" column to show the months of the year. If you'd like a hint on how to group the column to show just the months of the year, that's totally okay. If not, that's great too. You can always revisit this later if you change your mind.
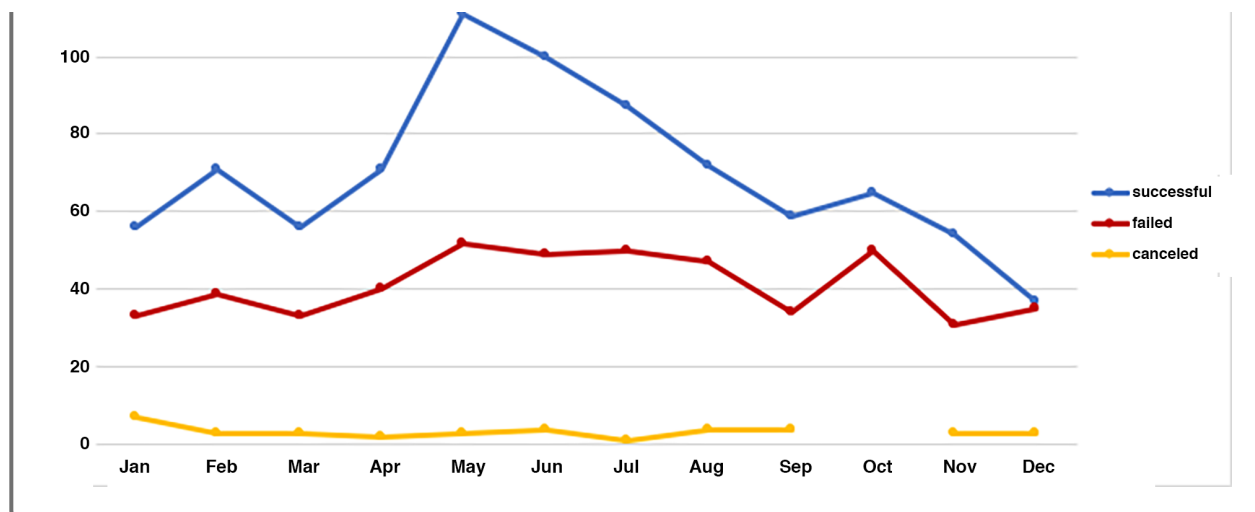
SHOW HINT

11. Filter the "Parent Category" to show only the data for "theater."

12. Sort the campaign outcomes in descending order so "successful" is first.

13. Confirm that your final pivot table looks like the following:

14. Create a line chart from the pivot table to visualize the relationship between outcomes and launch month.

15. Add a title to the line chart, and save it as `Theater_Outcomes_vs_Launch.png` to the resources folder.

Theater Outcomes Based on Launch Date

120

Deliverable 1 Requirements

You will earn a perfect score for Deliverable 1 by completing all requirements below:

- A "Years" column is created based on the "Date Created Conversion" column in the Kickstarter spreadsheet **(10 pt)**.

- A pivot table is created in a new worksheet labeled "Theater Outcomes by Launch Date" **(5 pt)**.

- The pivot table filters on "Parent Category" and "Years" **(10 pt)**.

- The columns, rows, and values in the pivot table fields are correctly populated **(10 pt)**.

- The "Parent Category" is filtered on "theater" **(5 pt)**.

- The row labels are changed to display the months of the year, and the campaign outcomes are sorted in descending order **(5 pt)**.

- A line chart is created showing the number of successful, failed, or canceled projects by month, it has a title, and it is saved as `Theater_Outcomes_vs_Launch.png` **(5 pt)**.

Deliverable 2: Outcomes Based on Goals Chart (30 points)

Deliverable 2 Instructions

Use your Excel skills to visualize the percentage of successful, failed, and canceled plays based on the funding goal amount. You'll need to use a new function, `COUNTIFS()`, to collect the outcome and goal data for the "plays" subcategory. If you need help with the `COUNTIFS()` function, see the hint below.

REWIND

For this deliverable, you've already done the following in this module:

- **Lesson 1.2.2**: Change the format of the data in a column.

- **Lesson 1.3.2**: Save charts as a PNG.

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1. In the KickStarter sheet, create a new sheet and label it "Outcomes Based on Goals."

2. In the new sheet, create the following columns to hold the data:

   - Goal

   - Number Successful

   - Number Failed

   - Number Canceled

- ~~Number Canceled~~

    o Total Projects

    o Percentage Successful

    o Percentage Failed

    o Percentage Canceled

3. In the "Goal" column, create the following dollar-amount ranges so projects can be grouped based on their goal amount.

☐

4. Use `COUNTIFS()` functions to populate the "Number Successful," "Number Failed," and "Number Canceled" columns by filtering on the Kickstarter "outcome" column, on the "goal" amount column using the ranges created in Step 3, and on the "Subcategory" column using "plays" as the criteria.

If you'd like a hint on using the `COUNTIFS()` function, that's totally okay. If not, that's great too. You can always revisit this later if you change your mind.

SHOW HINT

5. Use the `SUM()` function to populate the "Total Projects" column with the number of successful, failed, and canceled projects for each row.

6. Calculate the percentage of successful, failed, and canceled projects for each row.

7. Create a line chart titled "Outcomes Based on Goal" to visualize the

relationship between the goal-amount ranges on the *x*-axis and the percentage of successful, failed, or canceled projects on the *y*-axis.

8. Confirm that your line chart looks like the following, and save it as `Outcomes_vs_Goals.png` to the resources folder.

Deliverable 2 Requirements

You will earn a perfect score for Deliverable 2 by completing all requirements below:

- A new sheet is created with eight columns and twelve rows, according to the instructions **(3 pt)**.

- The `COUNTIFS()` function is used to populate the "Number Successful," "Number Failed," and "Number Canceled" columns, based on the project "outcome," the "goal" amount using the goal ranges in Step 3, and the Subcategory "plays" **(15 pt)**.

- The `SUM()` function is used on each row to add the "Number Successful," "Number Failed," and "Number Canceled" columns to populate the "Total Projects" column **(3 pt)**.

- The percentages of successful, failed, and canceled projects are calculated based on the data from the "Total Projects," "Number Successful," "Number Failed," and "Number Canceled" columns **(3 pt)**.

- A line chart is created and saved as `Outcomes_vs_Goals.png` with the goal-amount ranges on the *x*-axis, the percentage of successful, failed, or canceled projects on the *y*-axis, and an appropriate title **(6 pt)**.

Deliverable 3: Written Analysis of the Results (20 points)

Deliverable 3 Instructions

Use the README.md template file provided in the **Files** section as an outline for your written analysis of Deliverables 1 and 2.

> **NOTE**
>
> This **documentation** **(https://help.github.com/en/articles/basic-writing-and-formatting-syntax)** provides more information about basic writing and formatting syntax for GitHub.

Your written analysis must contain three sections:

1. Overview of Project: Explain the purpose of this analysis.

2. Analysis and Challenges: Explain how you performed your analysis using images and links to code, as well as any challenges you encountered and how you overcame them. If you had no challenges, describe any possible challenges or difficulties that could be encountered.

3. Results: Answer the following questions in complete and coherent sentences.

   - What are two conclusions you can draw about the Theater Outcomes by Launch Date?

   - What can you conclude about the Outcomes based on Goals?

   - What are some limitations of this dataset?

   - What are some other possible tables and/or graphs that we could

create?

Deliverable 3 Requirements

Structure, Organization, and Formatting (8 points)

The written analysis has the following structure, organization, and formatting:

- There is a title, and there are multiple paragraphs **(2 pt)**.

- Each paragraph has a heading **(2 pt)**.

- There are subheadings to break up text **(2 pt)**.

- Links are working, and images are correct and displayed where appropriate **(2 pt)**.

Analysis (12 points)

The written analysis has the following:

1. Overview of Project

   - The purpose and background are well defined **(2 pt)**.

2. Analysis and Challenges

   - The overview of the analysis is well described with screenshots **(2 pt)**.

   - Challenges or difficulties that were encountered, and how they were overcome, are well explained. If there were no difficulties, describe any possible challenges or difficulties that could be encountered **(2 pt)**.

3. Results

- Two conclusions are made about the Theater Outcomes by Launch Date **(2 pt)**.

- One conclusion is made about the Outcomes based on Goals **(2 pt)**.

- There is a summary of the limitations of the dataset, and there is a recommendation for additional tables or graphs **(2 pt)**.

Submission

Once you're ready to submit, make sure to check your work against the requirements one final time. It's easy to overlook items when you're in the zone!

As a reminder, the deliverables for this Challenge are as follows:

- Deliverable 1: Outcomes Based on Launch Date Chart

- Deliverable 2: Outcomes Based on Goals Chart

- Deliverable 3: A written analysis of the results (README.md)

For submission, do the following:

1. Make an exact copy of your `Kickstarter_Challenge.xlsx` workbook.

2. Remove the following sheets: "Successful US Kickstarters," "Failed US Kickstarters," and "Box and Whisker" so the Excel file isn't too large to upload.

3. Save the copy and compress it, and add it to your kickstarter-analysis GitHub repository.

4. Add the resources folder with the `Outcomes_vs_Goals.png` and `Theater_Outcomes_vs_Launch.png` images.
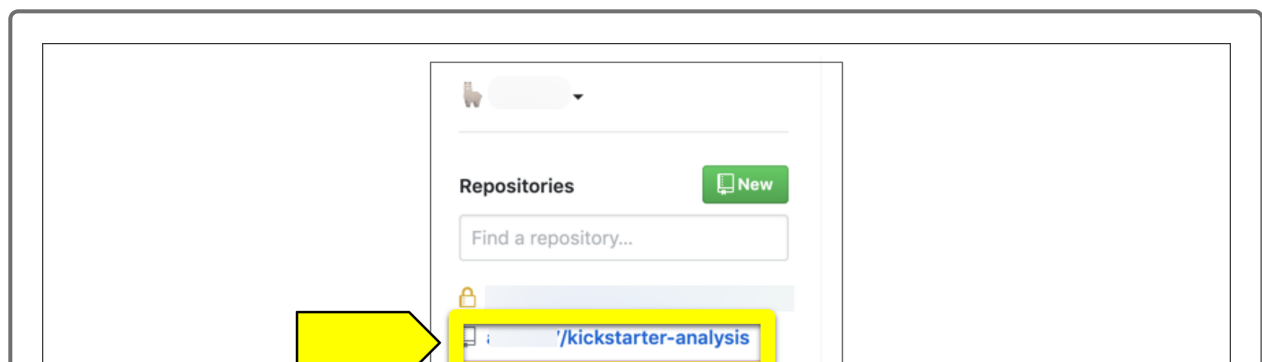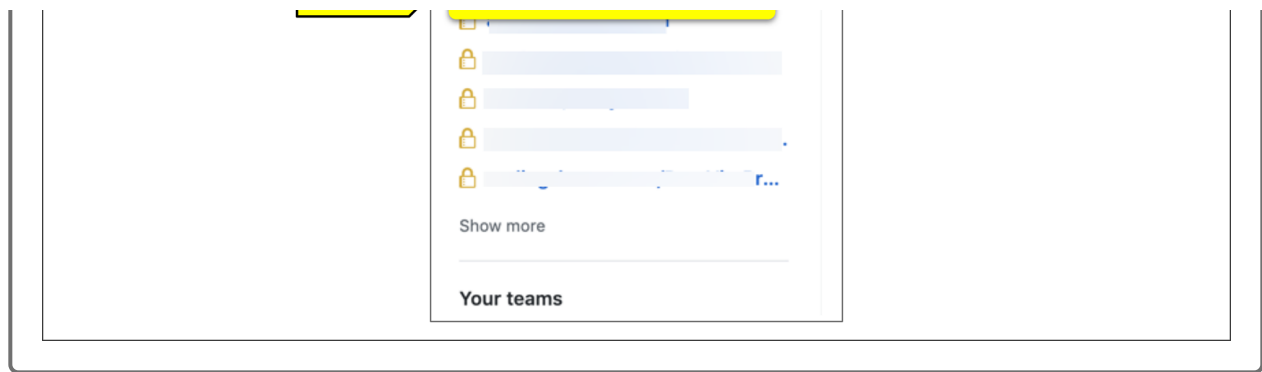
5. Add the updated README.md file.

REWIND

You should have already created the kickstarter-analysis repository with a README in the following lesson:

- **Lesson 1.6.1**: Share Your Findings.

Your homework will be submitted by providing a link to your kickstarter-analysis repository. To get this link, follow these steps:

1. On the **homepage** **(http://www.github.com)** , select your kickstarter-analysis repository from the Repositories list on the left. Click the link to go to the homepage for that repository.

2. Select the address in your search bar and copy it by highlighting the entire address and then right-clicking to select Copy. You can also copy by using the keyboard shortcut. This link can be shared with others so they can view the files in your repository or clone the repo if necessary.

To submit your challenge assignment in BootCampSpot, click Submit, then provide the URL of your kickstarter-analysis GitHub repository for grading. Comments are disabled for graded submissions in BootCampSpot. If you have questions about your feedback, please notify your instructional staff or the Student Success Manager. If you would like to resubmit your work for an improved grade, you can use the **Re-Submit Assignment** button to upload new links. You may resubmit up to 3 times for a total of 4 submissions.

IMPORTANT

Once you receive feedback on your Challenge, make any suggested updates or adjustments to your work, then add this week's Challenge to your professional portfolio.

NOTE

> You are allowed to miss up to two Challenge assignments and still earn your certificate. If you complete all Challenge assignments, your lowest two grades will be dropped. If you wish to skip this assignment, click Next, and move on to the next Module.

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Module-1 Rubric

Criteria	Ratings					Pts
Deliverable 1: Outcomes Based on Launch Date Chart	**50 to >47.0 pts Demonstrating Proficiency** ✓Deliverable fulfills all Deliverable 1 Requirements listed above.	**47 to >43.0 pts Approaching Proficiency** ✓Deliverable fulfills "Developing Proficiency" Criteria. BUT: ✓ALL THREE pivot table fields for columns, rows, and values are correct, row labels are changed to display the months, and campaign outcomes are sorted in descending order. ✓A line chart is created but doesn't match the solution file, it may have a title and is saved as a PNG file.	**43 to >39.0 pts Developing Proficiency** ✓Deliverable fulfills "Emerging" criteria. BUT: ✓"Parent Category" is filtered on "theater." ✓TWO of the THREE pivot table fields for columns, rows, and values are correct, row labels are changed to display the months, and campaign outcomes are sorted in descending order. ✓A line chart is created but doesn't match the solution file, it may have a title and is saved as a PNG file.	**39 to >0.0 pts Emerging** ✓Deliverable contains a "Years" column, a pivot table filtered on "Parent Category" and "Years." ✓"Parent Category" is filtered on a different category or shows all the categories. ✓ONE of the THREE pivot table fields for columns, rows, and values are correct, row labels are changed to display the months, and campaign outcomes are sorted in descending order. ✓A line chart is created but doesn't match the solution file, it may have a title and is saved as a PNG file.	**0 pts Incomplete**	50 pts

Criteria	Ratings					Pts
Deliverable 2: Outcomes Based on Goals Chart	**30 to >24.0 pts Demonstrating Proficiency** ✓Deliverable fulfills all Deliverable 2 Requirements listed above.	**24 to >22.0 pts Approaching Proficiency** ✓Deliverable fulfills "Developing Proficiency" criteria. BUT: ✓COUNTIFS() is correctly applied to TWO columns. ✓A line chart is created with TWO columns of correct data, saved, and may contain a title.	**22 to >20.0 pts Developing Proficiency** ✓Deliverable fulfills "Emerging" criteria. BUT: ✓COUNTIFS() is correctly applied to ONE column. ✓A line chart is created with ONE column of correct data, saved, and may contain a title.	**20 to >0.0 pts Emerging** ✓A new sheet has eight columns and twelve rows. ✓COUNTIFS() is applied incorrectly to the three columns. ✓SUM() is correctly applied to the Number Successful, Number Failed, and Number Canceled columns to calculate Total Projects column, but the values are incorrect. ✓The percentage of successful, failed, and canceled projects is calculated, but the percentages are incorrect.	**0 pts Incomplete**	30 pts
Deliverable 3: Structure, Organization, and Formatting	**8 to >7.0 pts Demonstrating Proficiency** ✓Deliverable fulfills all listed requirements for Deliverable 3: Structure, Organization, and Formatting.	**7 to >6.0 pts Approaching Proficiency** ✓Written analysis has a title and multiple paragraphs. ✓Each paragraph has a heading and subheadings. ✓Not all the links to images are working or they are incorrect.	**6 to >4.0 pts Developing Proficiency** ✓Written analysis has a title and multiple paragraphs. ✓Each paragraph has a heading, and there may be subheadings for each paragraph, OR links are working, and images are correct and	**4 to >0.0 pts Emerging** ✓Written analysis has a title and multiple paragraphs. ✓A line chart is created with incorrect data, saved, and may contain a title. ✓There may be incorrect data, a heading OR subheadings for each paragraph, OR all links are working, and images are correct and displayed where appropriate.	**0 pts Incomplete**	8 pts

Criteria	Ratings					Pts
Deliverable 3: Analysis	**12 to >11.0 pts** **Demonstrating Proficiency** ✓Deliverable fulfills all listed requirements for Deliverable 3: Analysis	**11 to >8.0 pts** **Approaching Proficiency** ✓Purpose and background are well defined. ✓Overview of analysis is well described with screenshots. ✓Challenges or difficulties encountered, and how they were overcome, are well explained. OR, possible challenges or difficulties are described. ✓Two conclusions made about the Theater Outcomes by Launch Date, and there is a conclusion on the Outcomes based on Goals. ✓There is a summary of the limitations of the dataset, OR there is a recommendation for additional tables or graphs.	**8 to >6.0 pts** **Developing Proficiency** ✓Purpose and background are well defined. ✓Overview of the analysis is well described with screenshots. ✓Any challenges or difficulties encountered, and how they were overcome, may be described. ✓There may be one or two conclusions made about the Theater Outcomes by Launch Date, OR there may be a conclusion on the Outcomes based on Goals.	**6 to >0.0 pts** **Emerging** ✓Purpose and background are well defined. ✓Overview of the analysis is well described with screenshots. ✓There may be one or two conclusions made about the Theater Outcomes by Launch Date, OR there may be a conclusion on the Outcomes based on Goals.	**0 pts** **Incomplete**	12 pts

displayed where appropriate.

Total Points: 100