

Instructions

Evaluate the homework against the outlined criteria in both the assignment rubric and the challenge rubric, assigning a rating to each criterion. Add points earned across all criteria and convert the total to a letter grade, assigning a “+” or “-” letter-grade designation at your discretion.

A (+/-)	90+	C (+/-)	40-64	F (+/-)	<15
B (+/-)	65-89	D (+/-)	15-39		

Notes:

The deployed assignment utilizes the **Pandas** and **Matplotlib** libraries to analyze the PyBer challenge. The source code should also be deployed to **GitHub**.

There are two parts of the rubric. The technical analysis is worth 70 points, and the written report is worth 30 points.

Technical Analysis Rubric for PyBer Challenge: Maximum of 70 points.

	Mastery (70 points)	Approaching Mastery (55 points)	Progressing (35 points)	Emerging (20 points)	Incomplete
Summary DataFrame (20 points)	The notebook generates a summary DataFrame that contains: ✓ The Total Rides (4 pts) ✓ The Total Drivers (4 pts) ✓ Total Fares (4 pts) ✓ Average Fare per Ride 4 pts) ✓ Average Fare per Driver (4 pts)	The notebook generates a summary DataFrame that contains at least four of the following: ✓ The Total Rides (4 pts) ✓ The Total Drivers (4 pts) ✓ Total Fares (4 pts) ✓ Average Fare per Ride 4 pts) ✓ Average Fare per Driver (4 pts)	The notebook generates a summary DataFrame that contains at least two of the following: ✓ The Total Rides (4 pts) ✓ The Total Drivers (4 pts) ✓ Total Fares (4 pts) ✓ Average Fare per Ride 4 pts) ✓ Average Fare per Driver (4 pts)	✓ The notebook does not generate a summary DataFrame, but it does create a DataFrame with the correct column names (5 pts)	No submission

<p>Summary DataFrame: Formatting</p> <p>(10 points)</p>	<p>The notebook generates a summary DataFrame, where all of the following are completed.</p> <ul style="list-style-type: none"> ✓ All 15 values in the rows are correct according to the solution (4 pts) ✓ The index name is deleted after creating the summary DataFrame (3 pts) ✓ All of the columns that need formatting are formatted (3 pts) 	<p>The notebook generates a summary DataFrame, with the following:</p> <ul style="list-style-type: none"> ✓ 10-12 of the values in the rows are correct according to the solution (3 pts) ✓ The index name is deleted after creating the summary DataFrame (3 pts) ✓ 3 of the 5 columns that need formatting are formatted (2 pts) 	<p>The notebook generates a summary DataFrame, with the following:</p> <ul style="list-style-type: none"> ✓ 6-9 of the values in the rows are correct according to the solution (1.5 pts) ✓ The index name is deleted after creating the summary DataFrame (3 pts) ✓ 2 of the 5 columns that need formatting are formatted (1.5 pts) 	<p>The notebook generates a summary DataFrame, with the following:</p> <ul style="list-style-type: none"> ✓ Less than 5 of the values in the rows are correct according to the solution (1 pts) ✓ The index name has not been deleted after creating the summary DataFrame (1 pts) ✓ 1 of the 5 columns that needs formatting is formatted (1 pts) 	<p>was received</p> <p>-OR-</p> <p>Submission was empty or blank</p> <p>-OR-</p> <p>Submission contains evidence of academic dishonesty</p>
<p>Multiple-Line Chart: Graph</p> <p>(20 points)</p>	<p>Line chart matches the line chart provided in the homework solution</p> <ul style="list-style-type: none"> ✓ There is one graph like the solution containing all three city types over the time period specified (10 pts) ✓ The data graphed from the DataFrame created using <code>.resample('W').sum()</code> (10 pts) 	<p>A line chart that does not match the line chart provided in homework solution, but contains:</p> <ul style="list-style-type: none"> ✓ There is a graph similar to the solution, like "seaborn", containing all three city types over the time period. (7.5 pts) ✓ The data graphed from the DataFrame created does not use <code>.resample('W').sum()</code>, but uses another time period, like 'D' or 'M' (7.5 pts) 	<p>A line chart that does not match the line chart provided in homework solution, but contains:</p> <ul style="list-style-type: none"> ✓ There is a graph similar to the solution containing all three city types over the time period specified, but is not the "fivethirtyeight" style. (5 pts) ✓ The data graphed from a DataFrame created with <code>resample()</code> only (the <code>sum()</code> method is not used), and uses another time period, like 'D' or 'M', or no time period (5 pts) 	<p>A line chart that does not match the line chart provided in homework, but contains:</p> <ul style="list-style-type: none"> ✓ One or more line graphs of the data and time span specified (5 pts) 	
<p>Multiple-Line Chart: Formatting</p> <p>(20 points)</p>	<p>The line chart has all of the following:</p> <ul style="list-style-type: none"> ✓ The axes labels and chart title are properly annotated (10 pts) ✓ The "fivethirtyeight" graph style is used (10 pts) 	<p>The line chart has the following:</p> <ul style="list-style-type: none"> ✓ One or both axes and / or the chart title is properly annotated (8 pts) ✓ A similar graph style to "fivethirtyeight", like "seaborn", is used (8 pts) 	<p>The line chart has the following:</p> <ul style="list-style-type: none"> ✓ The one axis or the chart title is properly annotated (5.5 pts) ✓ There is a graph but it is not the "fivethirtyeight" style (5.5 pts) 	<p>The line chart has the following:</p> <ul style="list-style-type: none"> ✓ There is a graph (5 pts) ✓ The axes labels and the chart title are not annotated 	

Writing Report Rubric for PyBer Challenge: Maximum of 30 points

	Mastery (30 points)	Approaching Mastery (22.5 points)	Progressing (15 points)	Emerging (7 points)	Incomplete
Structure, organization, and format (6 points)	<p>The written report is well developed, organized, comprehensive, and has the following:</p> <ul style="list-style-type: none"> ✓ Each paragraph has 4-5 sentences (2 pts) <p>And, has all of the following:</p> <ul style="list-style-type: none"> ✓ Each paragraph has a heading (1 pt) ✓ There are subheadings to break up thoughts and text (1 pt) ✓ Links are working (1 pt) ✓ Images are formatted and displayed where appropriate (1 pt) 	<p>The written report flows well, needs some organization, is not quite comprehensive, and has the following:</p> <ul style="list-style-type: none"> ✓ Each paragraph has 3-4 sentences (1.5 pts) <p>And, has three of the following:</p> <ul style="list-style-type: none"> ✓ Each paragraph has a heading (1 pt) ✓ There are subheadings to break up thoughts and text (1 pt) ✓ Links are working (1 pt) ✓ Images are formatted and displayed where appropriate (1 pt) 	<p>The written report needs more development, organization, is not comprehensive, and has the following:</p> <ul style="list-style-type: none"> ✓ Each paragraph has 2-3 sentences (1 pts) <p>And, has the two of the following:</p> <ul style="list-style-type: none"> ✓ Each paragraph has a heading (1 pt) ✓ There are subheadings to break up thoughts and text (1 pt) ✓ Links are working (1 pt) ✓ Images are formatted and displayed where appropriate (1 pt) 	<p>The written report is poorly developed and organized, and has the following:</p> <ul style="list-style-type: none"> ✓ Paragraphs have 2 sentences each (0.5 pts) <p>And, has the one of the following:</p> <ul style="list-style-type: none"> ✓ Each paragraph has a heading (1 pt) ✓ There are subheadings to break up thoughts and text (1 pt) ✓ Links are working (1 pt) ✓ Images are formatted and displayed where appropriate. (1 pt) 	<p>No submission was received</p> <p>-OR-</p> <p>Submission was empty or blank</p> <p>-OR-</p> <p>Submission contains evidence of academic dishonesty</p>

<p>1st Paragraph: Background and Results</p> <p>(8 points)</p>	<p>The first paragraph has all of the following:</p> <ul style="list-style-type: none"> ✓ The purpose is well defined(2 pts) ✓ The technical analysis performed is well described with screenshots or functional links to code (2 pts) ✓ The results of the challenge are thoroughly explained with images and a summary (4 pts) 	<p>The first paragraph has all of the following:</p> <ul style="list-style-type: none"> ✓ The purpose is defined but need some clarity (1.5 pts) ✓ The technical analysis performed is not completely described and is missing some key points,but there are screenshots or links to code (1.5 pts) ✓ The results of the challenge are not thoroughly explained, but there are images, and the summary is lacking some clarity(3 pts) 	<p>The first paragraph has all of the following:</p> <ul style="list-style-type: none"> ✓ The purpose is marginally clear (1 pt) ✓ The technical analysis performed is short and is missing many key points, and there are no screenshots or links to code (1 pt) ✓ The results of the challenge are marginally explained, but there are images, and the summary is lacking some clarity (2 pts) 	<p>The first paragraph has all of the following:</p> <ul style="list-style-type: none"> ✓ The purpose is not clear (0.5 pt) ✓ The technical analysis performed is poorly explained, but there are screenshots or links to the code, or it is marginally explained with no screenshots or links to code (0.5 pt) ✓ The results of the challenge are poorly explained, but there are images and the summary is lacking clarity (0.5 pts) 	
<p>2nd Paragraph: Challenges Encountered and Overcome</p> <p>(8 points)</p>	<p>The second paragraph has all of the following:</p> <ul style="list-style-type: none"> ✓ The challenges or difficulties encountered, if any, are well described. (2 pts) ✓ The process in which the challenges or difficulties were overcome are well defined (2 pts) ✓ The technical analysis used to overcome the challenges or difficulties are thoroughly explained with images (4 pts) <p>Note: if there were no challenges or difficulties, then</p>	<p>The second paragraph has all of the following:</p> <ul style="list-style-type: none"> ✓ The challenges or difficulties encountered, if any, are not well described (1.5 pts) ✓ The process in which the challenges or difficulties were overcome are not well defined or explained (1.5 pts) ✓ The technical analysis used to overcome the challenges or difficulties are marginally explained with images (3 pts) 	<p>The second paragraph has all of the following:</p> <ul style="list-style-type: none"> ✓ The challenges or difficulties encountered, if any, are marginally described (1 pts) ✓ The process in which the challenges or difficulties were overcome are marginally defined or explained (1 pts) ✓ The technical analysis used to overcome the challenges or difficulties are marginally explained with no images (2 pts) 	<p>The second paragraph has all of the following:</p> <ul style="list-style-type: none"> ✓ The challenges or difficulties encountered, if any, are poorly described (0.5 pts) ✓ The process in which the challenges or difficulties were overcome are poorly defined or explained (0.5 pts) ✓ The technical analysis used to overcome the challenges or difficulties are poorly explained with no images (1 pts) 	

	briefly explain what challenges or difficulties may be encountered and how to avoid them using technical analysis (8 pts)				
3rd Paragraph: Recommendations and Next Steps (8 points)	<p>The third paragraph has all of the following:</p> <ul style="list-style-type: none"> ✓ Recommends 2 additional analysis steps to be performed (4 pts) ✓ Thoroughly explains how they would perform the additional analyses (4 pts) 	<p>The third paragraph has all of the following:</p> <ul style="list-style-type: none"> ✓ Recommends 2 additional analysis steps to be performed (3 pts) ✓ How they would perform the additional analyses is not well explained (3 pts) 	<p>The third paragraph has all of the following:</p> <ul style="list-style-type: none"> ✓ Recommends 1 additional analysis step to be performed (2 pts) ✓ How they would perform the additional analyses is marginally explained. (2 pts) 	<p>The third paragraph has all of the following:</p> <ul style="list-style-type: none"> ✓ Recommends 1 additional analysis step to be performed, but provides no explanation. (2 pts) 	