

Case 21-10c
Data Analytics in Power BI
Toolkit Section V — Exercise Handout

Background

You have just started on the Green Dot Coffee (the “Company”) audit engagement. Green Dot Coffee is private company that own and operates coffee houses throughout the United States. Revenue is generated through point-of-sale transactions. For several business reasons, the Company divides its business into portfolios by location.

The engagement senior has assigned you the task of analyzing the Company’s portfolio of stores in the New York area, which is one of the highest generators of revenue for the Company. The information you obtain will be used to inform on the risk assessment. To assist you in obtaining the right information, she has provided a list of questions that include a recommendation for the type of visualization option that might be used to answer that question and some tips to consider when creating the visualization.

[Click here](#) for additional guidance regarding how to use Power BI. If you get stuck, ask your professor for assistance.

Individual Exercise

Import the Excel file you were provided into Power BI and create visualizations to graphically depict the population and answer the questions provided by the senior (see below).

Action	Response
<p><i>How many stores are in the portfolio?</i></p> <p>Suggested visualization: Card.</p> <p>Tip: A Card visualization is a number tile that tracks and visualizes a single value (e.g., total sales, count of stores).</p> <p>Tip: Drag <i>Store Id</i> to the “Fields” field after selecting <i>Card</i> from the visualization options. Using the down arrow in Fields, ensure “Count” is checked.</p>	
<p><i>What is the most common satisfaction rating?</i></p> <p><i>How many stores have a “5” satisfaction rating?</i></p> <p>Suggested visualization: Pie chart.</p> <p>Tip: Drag <i>Satisfaction Rate</i> to the “Legend” and “Values” fields after selecting <i>Pie chart</i> from the visualization options. Note that you may need to click the drop-down in the Value field and select “Count” to get the correct results.</p> <p>Tip: To see the count, right-click on the pie chart and select “Show Data.”</p>	

<p><i>Which neighborhood has the greatest number of stores?</i></p> <p><i>Why is the bar chart, as opposed to a histogram, the appropriate tool to answer the above questions?</i></p> <p>Suggested visualization: Clustered bar chart.</p> <p>Tip: Drag <i>Neighborhood</i> to the “X-axis” field and <i>Count of Store_Id</i> to the “Y-axis” field after selecting the <i>Clustered bar chart</i> from the visualization options.</p> <p>Tip: Click <i>More options</i> (“...”) in the top right-hand corner of the graph and use a sorting option.</p>	
<p><i>How many “2” rated stores are in the Hell’s Kitchen neighborhood?</i></p> <p>Suggestion: Filter the pie chart and use the bar chart to further analyze.</p> <p>Tip: Click on the slice of the pie which represents the “2” rating. Data pertaining to stores with a rating other than “2” will be grayed out. Hover over the Hell’s Kitchen bar within the bar chart and note the number of stores that are highlighted.</p>	
<p><i>How does capacity trend as compared to monthly rent? What is the lowest monthly rent?</i></p> <p>Suggested visualization: Scatter chart (i.e., scatterplot).</p> <p>Tip: Drag <i>Store_ID</i> to the “Values” field, <i>Capacity</i> to the “X Axis” field and <i>Monthly Rent</i> to the “Y Axis” field after selecting <i>Scatter chart</i> from the visualization options. options. Hover the mouse over a dot on the scatterplot to see the details of that item.</p>	

Action	Response
<p><i>How many stores are in the City Island neighborhood?</i></p> <p>Suggested visualization: Map.</p> <p>Tip: Drag <i>Latitude</i> to the “Latitude” field and <i>Longitude</i> to the “Longitude” field after selecting <i>Map</i> from the visualization options.</p> <p>Tip: Page “Level Filters” or the “Slice” functionality can be used to filter on a specific neighborhood.</p>	

Bonus Question

The engagement senior is impressed with your work in Power BI. She has asked you to think about how the identification of the items of greater audit interest might affect the risk assessment of the audit. Be prepared to discuss your answer with the rest of the class.

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