Lab 1: Reports in Power BI

Part 1: Extend the Over Budget report

You can download the course materials from here:

https://drive.google.com/drive/folders/1oe0MYz966G2hMuwZlgqJiaKDJLfg4xYF?usp=sharing

Download Power BI Desktop from here:

https://www.microsoft.com/en-us/download/details.aspx?id=58494

Load `1_1_extend_over_budget_report.pbix` from the Exercises folder on the Desktop. Rename this page to `Over Budget`.

Add a page-level filter to include only expense reports within fiscal year 2019. Use the `Fiscal Year` column instead of the `Recorded Date` dimension, as the recorded date for an expenditure might be in a different calendar year than fiscal year.

Add a new measure called `Amount Over Budget` to the `Expenditures` table. This measure should calculate the difference for the sum of actual amount minus all the budgeted amount. Do not forget to format this measure as a currency.

Add a new measure called `Is Over Budget`. This should return `TRUE` if the sum of actual expenses exceeds the budgeted amount.

- Create a table visual and include the department name, as well as if that department was over budget in FY 2019.
- Disable totals on the table.
- Create a card visual which indicates the total amount over budget.

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How much was fiscal year 2019 over budget, according to the watchdog report? Format the answer as $xxx.xxM.

Part 2: Create drill-through pages

Create a new page and title it `Department Breakdown` .

- On the `Department Breakdown` page, add a line chart showing the actual amount by recorded date. Be sure to use the date itself rather than the hierarchy.
- Remove the X and Y axis titles to add more room for the visual.

- Below the line chart, add a treemap which shows actual amount grouped by division and cost center. Make sure to use the `Cost Center hierarchy` , without department.
- Show the actual amount's value as a data label in the treemap.

Add `Department` to the drill-through fields on the page. If the Back button interferes with your line chart visual, modify your setup to make everything visible.

- Navigate back to the `Over Budget` page. Find "Fire and Rescue CIP" on the department table and drill through to the `Department Breakdown` page.
- Drill down into the Fire Fighting Equipment division one level.

How much did Wake County spend on 4th of September in 2018 on the cost center "Fire 800MHZ - Omnilink Upgrade"? Answer format: $XXX,XXX

Part 3: Visualizing over time

Navigate to the `Department Breakdown` page and clear any treemap filters you may have selected and/or drill-up to the top-level of the hierarchy.

Add a measure called `Number of Expenditures`, which should be the count of `Check Number`s. Create the new measure in `Expenditures` table.

Reduce the size of the treemap, making available 40-50% of the space. To that space, add a scatter chart, comparing number of expenditures (on the Y axis) versus actual amount (on the X axis) by cost center, with each cost center showing in the legend.

Add the recorded year and month to the *Play Axis* for the scatter plot. Note that this is a single field in the `Recorded Date` dimension.

- Change the title to "Expenditures by Cost Center"
- Remove the X and Y axis titles to make additional space
- Move the legend to the right side of the visual
- Return to the `Over Budget` page

When drilling through to the "Facilities Design & Construction" department, what is the number of expenditures the department had in November 2018 (201811)?