Designing a Power BI Visualization for Expense Submissions

A comprehensive guide outlining process of creating a visualization in Power BI Desktop. This guide demonstrates how to connect to the SharePoint list referenced in the previous guides, housing Expense Submissions, and visualize the data effectively.

Step 1: Launch Power BI Desktop

- Download and install Power BI Desktop if you don't have it already.
- Open Power BI Desktop and sign in with your Microsoft account if needed.
- Start with a new report by clicking New Report.

Step 2: Connect to the SharePoint List Data Source

- Select Get data from the Home tab.
- Search for SharePoint and select SharePoint List. Click Connect.
- Enter the Site URL. Please enter the site's root URL only. If your list is at https://company.sharepoint.com/sites/YourSite/Lists/ListName, you should use: https://company.sharepoint.com/sites/YourSite and click OK.
- Find and select the SharePoint list named Expense Submissions and click Transform Data.

Step 3: Transform the Data in Power Query Editor

- In the Power Query Editor screen, click on Choose Columns from the Home tab.
- Select the following columns: ID, Employee Name, Date of Expense, Type of Expense, Amount, Notes and Approval Status. Click OK.
- Format the columns by clicking on the Data Type icon next to each column name. ID should be Whole Number, Employee Name should be Text, Date of Expense should be Date, Type of Expense should be Text, Amount should be Currency (Fixed Decimal Number), Notes should be Text, and Approval Status should be Text.
- Right click on the column and click "Rename." Rename columns by adding a space to Type of Expense, Date of Expense, Approval Status, and Employee Name.
- Click on Close and Apply from the Home tab to load the data into Power BI Desktop.

Step 4: Create a Pie Chart

- From the Visualizations pane, select the pie chart icon.
- From the Data pane, expand Expense Submission.
- Drag and drop the Type of Expense into Legend and Approval Status into Values.
- Move the legend by clicking on Format your visual and expand Legend. Change the options to Top left.
- Move the visual by dragging and dropping; resize by dragging corners.
    - Optional: Under Format your visual, then General Properties.
        - Set the size to Height 500 x Width 500.
        - Set the position to Horizontal 0 x Vertical 0.

Step 5: Create a Stacked Bar Chart

- Unselect the pie chart by clicking on the white space on the page.
- From the Visualizations pane, select the stacked bar chart icon.
- Drag and drop Type of Expense into Y Axis.
- Drag and drop Amount into X Axis.
- Drag and drop Approval Status into Legend.
- Move the visual by dragging and dropping; resize by dragging corners.
  - Optional: Under Format your visual, then General properties
    - Set the position to Horizontal 500 x Vertical 0.
    - Set the size to Height 500 x Width 780.

Step 6: Create a Table

- Unselect the bar chart by clicking on the white space on the page.
- From the Visualizations pane, select the table icon.
- Select the followed checkboxes from the data pane:
  - ID (remove the count and select Don't summarize)
  - Employee Name
  - Type of Expense
  - Notes
  - Approval Status
  - Amount (remove the sum and select Don't Summarize)
- Move the visual by dragging and dropping; resize by dragging corners.
  - Optional: Under Format your visual, then General properties
    - Set the size to Height 220 x Width 1000.
    - Set the position to Horizontal 0 x Vertical 500.
- Adjust the column widths to maximize the visual by dragging the column separators.

Step 7: Create a Card

- Unselect the table by clicking on the white space on the page.
- From the Visualizations pane, select the card icon.
- Drag and drop Amount into Fields.
- Move the visual by dragging and dropping; resize by dragging corners.
  - Optional: Under Format your visual, then General properties
    - Set the size to Height 220 x Width 280.
    - Set the position to Horizontal 1000 x Vertical 500.

Step 8: Test the Visualization

- Try to select, multi-select, and unselect items on the pie chart, the stacked bar chart, and the table. Watch how all the visuals react and filter the data accordingly.