2.2. Student Handout

Power BI Interface and Basics: Student Handout

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1. Navigating the Power BI Interface

Key Areas of the Power BI Interface:

- **Home Tab**: Access tools for importing data, creating visuals, and formatting.
- **View Tab**: Adjust report layout, zoom, and switch themes.
- **Modeling Tab**: Manage data models, create calculated columns, and relationships.

Examples:

1. Use the **Home Tab** to import a CSV file into Power BI.
2. Adjust the theme of your report using the **View Tab**.
3. Create a new calculated column in the **Modeling Tab** to calculate profit margin.

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2. Data, Report, and Model Views

Main Views in Power BI:

- **Data View**: View and prepare raw data.
- **Report View**: Design and create visuals.
- **Model View**: Manage relationships between tables.

Examples:

1. Clean and transform data in the **Data View**.
2. Create a bar chart in the **Report View** to display sales data.
3. Establish a relationship between the Sales and Products tables in the **Model View**.

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3. Creating Your First Report in Power BI

Steps to Create a Report:

1. **Import Data**: Use the **Home Tab** to get data from various sources.
2. **Choose Visuals**: Select visualizations from the **Report View**.
3. **Drag and Drop**: Add fields to the canvas to create visuals.

Examples:

1. Import data from an Excel file.
2. Create a pie chart to show market share by product category.
3. Drag the "Region" field to the canvas to create a map visual.

4. Understanding Visualizations: Charts, Tables, and Maps

Common Visualizations:

- **Charts**: Bar, line, and pie charts for trends and comparisons.
- **Tables**: Display raw data in a structured format.
- **Maps**: Visualize geographical data.

Examples:

1. Use a line chart to show monthly sales trends.
2. Display customer data in a table format.
3. Create a map to visualize sales distribution by country.

5. Drag-and-Drop Interface for Creating Visuals

Creating Visuals:

- Drag fields from your data onto the canvas to create visuals.

Examples:

1. Drag "Sales" and "Year" fields to create a line chart.
2. Add "Product Category" to a bar chart for comparison.
3. Use "Country" to create a map visual.

6. Working with Visualizations

Customizing Visuals:

- **Adding Visuals**: Add multiple visuals to your report.
- **Resizing Visuals**: Adjust the size of visuals.
- **Formatting Visuals**: Change colors, fonts, and styles.

Examples:

1. Add a new table visual to your report.
2. Resize a pie chart to fit the report layout.
3. Change the color scheme of a bar chart for better readability.

7. Filtering Data in Visuals (Basic Filtering, Slicers)

Filtering Options:

- **Basic Filtering**: Apply filters to individual visuals.
- **Slicers**: Interactive filters for user-driven data exploration.

Examples:

1. Filter a chart to show data for a specific year.
2. Add a slicer for product categories to filter the report.
3. Use a slicer to filter sales data by region.

8. Creating Simple Dashboards

Steps to Create a Dashboard:

1. **Create Multiple Visuals**: Develop several visuals in the **Report View**.
2. **Arrange the Visuals**: Organize visuals on the canvas.
3. **Add Slicers**: Enhance interactivity with slicers.

Examples:

1. Combine a bar chart, line chart, and table into a dashboard.
2. Arrange visuals to highlight key performance indicators.
3. Add a slicer for time periods to filter the entire dashboard.

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9. Introduction to the Power BI Ribbon and Options

Key Sections of the Ribbon:

- **Home**: Import data and format reports.
- **Insert**: Add visuals, text boxes, and images.
- **Modeling**: Create calculated columns and manage table relationships.

Examples:

1. Use the **Insert** tab to add a text box to your report.
2. Create a new measure in the **Modeling** tab for total revenue.
3. Import data from a SQL Server using the **Home** tab.

Conclusion

This handout provides a concise overview of the Power BI interface and basic functionalities. Practice these steps and examples to become proficient in creating reports and dashboards in Power BI. If you have any questions, feel free to ask!