what is dashboard? Explain in detail the procedure how to create dashboard in tableau?

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A dashboard in Tableau is a collection of visualizations and other objects arranged on a single canvas. It allows you to combine multiple sheets and dashboards into a unified view, providing a comprehensive and interactive overview of your data. Dashboards in Tableau enable users to gain insights by exploring and interacting with various visualizations in a cohesive layout.

Here's a detailed procedure on how to create a dashboard in Tableau:

Steps to Create a Dashboard in Tableau:

1. **Connect to Data:**
   - Open Tableau Desktop and connect to your dataset.
2. **Create Worksheets:**
   - Build the individual visualizations (worksheets) that you want to include in your dashboard.
   - For example, create bar charts, line charts, maps, or any other visualizations based on your analysis needs.
3. **Drag Worksheets to Dashboard:**
   - Once you've created the necessary worksheets, go to the bottom of the Tableau interface where you have tabs for sheets.
   - Drag each worksheet tab to the dashboard area. This action creates a new dashboard and adds the selected worksheet as a new dashboard item.
4. **Arrange Dashboard Items:**
   - In the dashboard area, you can arrange the items by dragging and dropping them to the desired positions.
   - Use the handles on the edges of each item to resize them as needed.
5. **Add Objects:**
   - You can enhance your dashboard by adding objects such as text, images, and web pages.
   - To add text, click the "Text" button in the toolbar and click on the dashboard to enter text.
   - To add an image or web page, use the "Image" and "Web Page" objects from the Objects pane.
6. **Create Dashboard Titles and Captions:**
   - Add titles and captions to your dashboard for clarity and context.
   - Click on the dashboard title or use the "Title" shelf to add a title. Similarly, use the "Caption" shelf for additional context.
7. **Format and Style:**
   - Customize the appearance of your dashboard by adjusting formatting options.
   - Use the Format menu to customize backgrounds, borders, fonts, and other visual elements.
8. **Create Dashboard Actions:**
   - Enhance interactivity by creating dashboard actions. For example, you can create filter actions that allow users to interactively filter one visualization based on selections in another.
   - Go to Dashboard > Actions to create new actions.

9. **Size and Fit:**
    - Adjust the size and layout of your dashboard to ensure it looks good on different devices.
    - Use the Size dropdown menu to choose a fixed size or automatic sizing based on the device.
10. **Preview and Save:**
    - Preview your dashboard by clicking the "Show Dashboard" button in the bottom-left corner.
    - Save your Tableau workbook.
11. **Publish or Share:**
    - Publish your workbook to Tableau Server or Tableau Online if you want to share it with others.
    - Alternatively, export the dashboard as an image or PDF for static sharing.

By following these steps, you can create a dashboard in Tableau that effectively communicates insights from your data through a combination of visualizations, text, and interactive elements.

create a dashboard on sample superstore with following use cases? i.Quantity-Discount percentage correlation ii.Revenue based on month of the year iii. detailed profit based on category and its relevant subcategory in each region. iv. create interactive filters for region and year on dashboard

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Certainly! Below are the steps to create a Tableau dashboard for the specified use cases using the Sample Superstore dataset:

Use Case 1: Quantity-Discount Percentage Correlation

1. **Create a Scatter Plot:**
    - Drag the "Quantity" field to the Columns shelf and the "Discount" field to the Rows shelf.
    - Add additional context to the scatter plot, such as color or size, to enhance visual representation.

Use Case 2: Revenue Based on Month of the Year

2. **Create a Line Chart:**
    - Drag the "Order Date" field to the Columns shelf, and choose the "Month" level.
    - Drag the "Sales" field to the Rows shelf.
    - Connect the points to create a line chart representing revenue over the months.

Use Case 3: Detailed Profit Based on Category and Subcategory in Each Region

3. **Create a Heat Map:**

- Drag the "Region" field to the Columns shelf and the "Category" and "Sub-Category" fields to the Rows shelf.
- Drag the "Profit" field to the Color shelf to represent profits with color intensity.

Use Case 4: Interactive Filters for Region and Year

4. **Create Filters:**
   - Drag the "Region" field to the Filters shelf, and choose the specific regions you want to include in the dashboard.
   - Drag the "Order Date" field to the Filters shelf, choose the "Range of dates" option, and select the desired year range.
5. **Combine Visualizations into a Dashboard:**
   - Click on the "New Dashboard" button at the bottom of the Tableau window.
   - Drag the individual sheets for each use case onto the dashboard.
6. **Add Filters to Dashboard:**
   - Drag the "Region" filter and "Order Date" filter to the dashboard.
   - Arrange the filters where you want them on the dashboard.
7. **Arrange and Format Dashboard:**
   - Arrange the visualizations on the dashboard as needed.
   - Add titles and captions for clarity.
   - Format the dashboard to ensure a cohesive and appealing layout.
8. **Create Interactive Filters:**
   - For interactive filters, go to Dashboard > Actions.
   - Create a filter action for the "Region" field and another for the "Order Date" field. Define the source and target sheets for each action.
9. **Preview and Save:**
   - Preview your dashboard by clicking the "Show Dashboard" button.
   - Save your Tableau workbook.
10. **Publish or Share:**
    - Publish the workbook to Tableau Server or Tableau Online for sharing.
    - Alternatively, export the dashboard as an image or PDF for static sharing.

This approach will help you create a comprehensive Tableau dashboard that addresses each of the specified use cases with interactive filters for regions and years. Adjustments to formatting and design can be made based on your preferences and requirements

3c.explain about context filter with an example in tableau?

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In Tableau, a context filter is a powerful tool that allows you to improve the performance of your visualizations by reducing the amount of data considered for a particular sheet. It creates a filtered context for the sheet, restricting the data that is loaded and processed.

Here's an example to illustrate how to use a context filter in Tableau:

Example: Sales Performance Dashboard

Suppose you have a dataset containing sales information with dimensions such as Category, Sub-Category, Region, and a measure like Sales. You want to create a sales performance dashboard focusing on a specific category and region. However, the dataset is quite large, and you want to improve the performance by filtering the data.

1. **Connect to Data:**
   - Open Tableau Desktop and connect to your dataset.
2. **Create a New Worksheet:**
   - Drag the "Category" field to the Rows shelf and the "Region" field to the Columns shelf.
3. **Add a Measure:**
   - Drag the "Sales" measure to the Color shelf. This will create a map with color-coding representing sales values for each category in different regions.
4. **Apply a Context Filter:**
   - To apply a context filter, right-click on a dimension (e.g., "Category") in the Filters pane and choose "Add to Context." Tableau will create a filtered context for the sheet based on the selected dimension.
5. **Adjust the Filter:**
   - After adding the dimension to context, you can go to the Filters pane and modify the filter to focus on specific values. For example, select a particular category or region of interest.
6. **Observe the Performance:**
   - As you apply the context filter, Tableau will only load and process the data relevant to the selected category and region. This can significantly improve the performance of your dashboard, especially when dealing with large datasets.
7. **Build Additional Visualizations:**
   - You can now build additional visualizations on the same dashboard, and they will also benefit from the filtered context, ensuring that only the relevant data is considered.

Context filters are particularly useful when dealing with large datasets, as they help in optimizing performance by limiting the amount of data loaded into the visualization. They can be applied to one or more dimensions, and you have the flexibility to choose the specific values you want to focus on.