Task 7 –

1. Connect to your data in the Data source tab.
2. In the Worksheet tab, drag "Month" and "Sale" to the Rows and Columns shelves.
3. Right-click the "Sale" pill and select "dual axis" to create a line chart with two measures.
4. Format the line chart as desired (e.g. color, line thickness, axis labels, etc.).
5. Drag "Profit" and "Sale" to the Rows and Columns shelves.
6. Right-click the "Sale" pill and select "dual axis" to create a pie chart with two measures.
7. Format the pie chart as desired (e.g. color, labels, etc.).
8. Drag "Product" and "Sale" to the Rows and Columns shelves.
9. Right-click the "Sale" pill and select "dual axis" to create a stacked chart with two measures.
10. Format the stacked chart as desired (e.g. color, labels, etc.).
11. Create a new Dashboard tab, and drag the line chart, pie chart, and stacked chart onto it.
12. Arrange the charts and add filters as desired using the options in the "Layout" menu.
13. Add an image to the dashboard as desired using the "Image" menu option.
14. Format the dashboard as desired (e.g. size, background color, title, etc.).

Task 8 –

1. Connect to your data in the Data source tab.
2. In the Worksheet tab, drag "Customer by State", "Sales by Order (Quarterly)", and "Sales by Segment" to the Rows and Columns shelves.
3. Apply filters as desired (e.g. "Add filter by action").
4. Create a pie chart by dragging "Region" to the Rows shelf and "Sales" to the Angle shelf.
5. Format the pie chart as desired (e.g. color, labels, etc.).
6. Create a bar chart by dragging "Region" to the Columns shelf and "Sales" to the Rows shelf.
7. Format the bar chart as desired (e.g. color, axis labels, etc.).
8. Create a line chart by dragging "Region" to the Columns shelf and "Sales" to the Rows shelf.
9. Format the line chart as desired (e.g. color, line thickness, axis labels, etc.).
10. Create a stacked chart by dragging "Region" to the Columns shelf and "Sales" to the Rows shelf.
11. Format the stacked chart as desired (e.g. color, labels, etc.).
12. Create a new Dashboard tab, and drag the pie chart, bar chart, line chart, and stacked chart onto it.
13. Arrange the charts and apply filters as desired using the options in the "Layout" menu.
14. Format the dashboard as desired (e.g. size, background color, title, etc.).

Task 9 –

1. Connect to your data in the Data source tab.
2. Choose one of the following operations to perform on the data fields:
   * Add a new field: Right-click in the data pane and select "Create Calculated Field". Enter a name and expression for the new field.
   * Combine two or more fields: Right-click in the data pane, select "Combine Fields", and choose the desired fields to combine.
   * Create a calculated field: Right-click in the data pane and select "Create Calculated Field". Enter a name and expression for the calculated field.
   * Create a set of two fields: Right-click in the data pane, select "Create Set", and choose the desired fields to include in the set.
   * Group multiple fields: Right-click in the data pane, select "Group", and choose the desired fields to group.
   * Search for existing fields: Use the search bar at the top of the data pane to search for a specific field.
   * Rename existing fields: Right-click the desired field and select "Rename".
   * Preorder fields: Right-click the desired field and select "Sort".
3. Choose one of the following filters to apply to the data:
   * Extract filter: Right-click the data source, select "Extract Data", and choose the desired options for the extract.
   * Data source filter: Right-click in the data pane, select "Filter", and choose the desired options for the data source filter.
   * Context filter: Right-click in the data pane, select "Filter", and choose the desired options for the context filter.
   * Dimension filter: Right-click a dimension in the view, select "Filter", and choose the desired options for the dimension filter.
   * Measure filter: Right-click a measure in the view, select "Filter", and choose the desired options for the measure filter.
4. Create a bar chart for sales and profit:
   * Drag "Sales" to the Rows shelf and "Profit" to the Columns shelf.
   * Choose one of the following options for the bar chart:
     + Horizontal bar chart: Right-click the "Sales" axis, select "Synchronize Axis", and then right-click the "Profit" axis and select "Discrete".
     + Vertical bar chart: Right-click the "Profit" axis, select "Synchronize Axis", and then right-click the "Sales" axis and select "Discrete".
     + Segmented bar chart: Drag a dimension (e.g. "Region") to the Color shelf.
     + Stacked bar chart: Right-click the "Profit" axis, select "Synchronize Axis", and then right-click the "Sales" axis and select "Stack Marks".
     + Side-by-side bar chart: Right-click the "Profit" axis, select "Synchronize Axis", and then right-click the "Sales" axis and select "Dual Axis".
5. Apply shade axis and combine axis over the data:
   * Right-click the desired axis, select "Shade Above" or "Shade Below".
   * Right-click the desired axis, select "Synchronize Axis".
6. Create a worksheet based on "Category" and "Subcategory":
   * Drag "Category" to the Rows shelf and "Subcategory" to the Columns shelf.
7. Create a worksheet based on "Profit

Task 10 –

1. Connect to the data source in Tableau Desktop/Public/Server.
2. Create a line chart for the "Order" and "Sum of Sales" fields by following these steps:

* Drag the "Order" field to the Columns shelf and the "Sum of Sales" field to the Rows shelf.
* From the Marks card, select Line as the mark type.
* On the Marks card, right-click and select Dual Axis to merge the axes.

1. Create a donut chart for the "Sum of Sales" field by following these steps:

* Drag the "Sum of Sales" field to the Angle of the donut chart.
* From the Marks card, select Donut as the mark type.
* To specify the colour for each region, drag the "Region" field to the Color card.

1. To create a map for the longitude and latitude fields, follow these steps:

* Drag the "Longitude" field to the Columns shelf and the "Latitude" field to the Rows shelf.
* From the Marks card, select Map as the mark type.
* To specify the labels and colour for each state, drag the "State" field to the Label card and the Color card.
* To specify the value, drag the "Value" field to the Size card.

1. To create a bar chart for the analysis on sales and product name based on the sales in 2019, 2020 and 2021, follow these steps:

* Drag the "Year" field to the Columns shelf and the "Sales" field to the Rows shelf.
* From the Marks card, select Bar as the mark type.
* To analyse the product name, drag the "Product Name" field to the Color card.

1. To create a bar chart, line chart, and donut/pie chart for the "Sales" and "Profit" fields, follow the steps as in steps 2, 3 and 5, but replace the fields as appropriate.
2. Finally, create a dashboard by dragging the created worksheets and incorporating an image or URL.