TABLEU STEPS :   
  
Online Retail Dataset :   
  
1)

a. Find and Plot top 10 products based on total sale

b. Find and Plot product contribution to total sale

c. Find and Plot the month wise sales in year 2010 in descending order

d. Find and Plot most loyal customers based on purchase order

e. Find and Plot yearly sales comparison

f. Find and Plot country wise total sales price and show on Geospatial graph

**Step 1: Load the Data into Tableau**

1. Open **Tableau Desktop** (or Tableau Public if you are using the free version).
2. Click on **File → Open** and select your OnlineRetail.csv file.
3. Tableau will automatically load the data and show a preview.
4. Click on **Sheet 1** at the bottom to start your visualization.

**Now, for each of your tasks:**

**a. Find and Plot Top 10 Products Based on Total Sale**

**Goal**: Find top 10 products based on sales.

1. Drag **Description** to **Rows**.
2. Create a **Calculated Field**:
   * Go to **Analysis → Create Calculated Field**.
   * Name it Total Sales.
   * Formula:

css

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[Quantity] \* [UnitPrice]

* + Click OK.

1. Drag the newly created **Total Sales** field to **Columns**.
2. Click on the drop-down of the Description field and **Sort Descending** by Total Sales.
3. Drag **Description** into **Filters**, select **Top** tab → select **By Field** → Top 10 by Total Sales.
4. Choose **Bar Chart** from the "Show Me" panel if it's not automatically selected.

✅ **Result**: Top 10 products by sales in a bar chart.

**b. Product Contribution to Total Sale**

**Goal**: Show how each product contributes to the total sales.

1. Use the same sheet or duplicate the previous one (Right-click sheet tab → **Duplicate**).
2. Click on **Show Me** → Choose **Pie Chart**.
3. Drag Total Sales onto **Angle** and **Color** on the Marks card.
4. Drag Description onto **Label**.
5. Right-click on the pie chart → **Annotate → Mark** to show percentages if needed.

✅ **Result**: Pie chart showing each product’s contribution.

**c. Month Wise Sales in Year 2010 in Descending Order**

**Goal**: See monthly sales for 2010 only.

1. Create a new sheet.
2. Drag **InvoiceDate** to **Columns**.
3. Right-click on **InvoiceDate** → Select **Month**.
4. Drag **Total Sales** to **Rows**.
5. Create a Filter:
   * Drag **InvoiceDate** to **Filters**.
   * Select **Year → 2010** only.
6. Sort the months based on total sales descending (click axis and **Sort Descending**).

✅ **Result**: Month-wise sales for 2010 in descending order (bar chart).

**d. Most Loyal Customers Based on Purchase Order**

**Goal**: Customers who made the most purchases.

1. Create a new sheet.
2. Drag **CustomerID** to **Rows**.
3. Drag **InvoiceNo** to **Rows** as well.
4. Click on **InvoiceNo** and select **Count Distinct** (Right-click → Measure → Count Distinct).
5. Drag the Count of InvoiceNo to **Columns**.
6. Sort in **Descending** order.
7. Show **Top 10** (Right-click CustomerID → Filter → Top → By Field).

✅ **Result**: Bar chart of most loyal customers based on the number of purchase orders.

**e. Yearly Sales Comparison**

**Goal**: Compare sales by year.

1. Create a new sheet.
2. Drag **InvoiceDate** to **Columns**.
3. Right-click → select **Year**.
4. Drag **Total Sales** to **Rows**.
5. Choose **Bar Chart** from Show Me if not automatically selected.

✅ **Result**: Yearly sales comparison.

**f. Country Wise Total Sales on Geospatial Graph**

**Goal**: Map showing total sales by country.

1. Create a new sheet.
2. Drag **Country** into the **Rows** shelf.
3. Drag **Total Sales** into **Size** and **Color** on the Marks card.
4. Go to **Show Me** and choose **Map**.
5. Tableau may automatically recognize **Country**; if not, right-click **Country** → **Geographic Role → Country/Region**.

✅ **Result**: World map showing countries sized and colored based on total sales.

Part B :   
a. Find and Plot country wise popular product b. Find and Plot bottom 10 products based on total sale c. Find and Plot top 5 purchase order d. Find and Plot most popular products based on sales e. Find and Plot half yearly sales for the year 2011 f. Find and Plot country wise total sales quantity and show on Geospatial graph

**🔍 Summary of What You’ll Learn:**

* a. **Popular product by country**
* b. **Bottom 10 products by total sales**
* c. **Top 5 purchase orders**
* d. **Most popular products by sales**
* e. **Half-yearly sales for 2011**
* f. **Country-wise sales quantity on a map**

**🛠️ PREPARATION (Once Only)**

Before starting, ensure you’ve created this calculated field:

**➤ Create Total Sales:**

Go to: **Analysis → Create Calculated Field**

text

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Name: Total Sales

Formula: [Quantity] \* [UnitPrice]

Click **OK**.

**🔹 a. Find and Plot Country-Wise Popular Product**

**🎯 Goal: Show the top-selling product per country.**

**Steps:**

1. Create a new worksheet.
2. Drag **Country** to **Rows**.
3. Drag **Description** to **Rows** next to Country.
4. Drag **Total Sales** to **Columns**.
5. Right-click on Description → **Add to Filters**:
   * Go to **Top** tab → By Field → **Top 1 by Total Sales**
   * Click OK.

🔁 Do this for each country using a **Table Calculation**, or use a **Set** or **LOD Expression** for advanced filtering (optional for beginners).

✅ **Result**: Bar chart of the most popular product in each country.

**🔹 b. Find and Plot Bottom 10 Products Based on Total Sale**

**🎯 Goal: Products with the least total sales.**

**Steps:**

1. Create a new worksheet.
2. Drag **Description** to **Rows**.
3. Drag **Total Sales** to **Columns**.
4. Sort ascending (click sort icon).
5. Filter:
   * Right-click Description → **Filter** → Top tab → **Bottom 10 by Total Sales**

✅ **Result**: Bar chart of bottom 10 products by sales.

**🔹 c. Find and Plot Top 5 Purchase Orders**

**🎯 Goal: Top 5 invoices (purchase orders) with highest total sales.**

**Steps:**

1. Create a new worksheet.
2. Drag **InvoiceNo** to **Rows**.
3. Drag **Total Sales** to **Columns**.
4. Sort descending.
5. Right-click InvoiceNo → **Filter** → Top tab → **Top 5 by Total Sales**

✅ **Result**: Bar chart of top 5 orders by total value.

**🔹 d. Find and Plot Most Popular Products Based on Sales**

**🎯 Goal: Products that generated the most revenue.**

**Steps:**

1. Create a new worksheet.
2. Drag **Description** to **Rows**.
3. Drag **Total Sales** to **Columns**.
4. Sort descending.
5. Right-click Description → Filter → Top tab → **Top 10** (or however many you want)

✅ **Result**: Bar chart of top-selling products.

**🔹 e. Find and Plot Half-Yearly Sales for the Year 2011**

**🎯 Goal: Compare sales between Jan–Jun and Jul–Dec in 2011.**

**Steps:**

1. Create a new worksheet.
2. Drag InvoiceDate to Filters:
   * Choose **Year** → Select only **2011**
3. Create a calculated field:  
   **Name**: HalfYear

text

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IF MONTH([InvoiceDate]) <= 6 THEN "H1" ELSE "H2" END

1. Drag HalfYear to **Columns**.
2. Drag Total Sales to **Rows**.

✅ **Result**: Bar chart comparing H1 and H2 sales in 2011.

**🔹 f. Country-Wise Total Sales Quantity on Geospatial Graph**

**🎯 Goal: Show total quantity sold per country on a map.**

**Steps:**

1. Create a new worksheet.
2. Drag **Country** to **Detail** or **Rows**.
3. Drag **Quantity** to **Size** and **Color** on the Marks card.
4. On the **Marks type**, select **Map**.
5. Ensure **Country** is set as **Geographic Role → Country/Region** (right-click to verify).

✅ **Result**: Map with countries sized and colored by quantity sold.

**✅ Tips for All Charts:**

* Add Label from the Marks card to show values.
* Use **Dashboards** to combine charts visually.
* Use **Filters** to allow interactive exploration.