PROJECT FOR BUSINESS ANALYTICS WITH EXCEL

Designing a Sales Dashboard in Excel

Objectives

- ✓ Analyze the sales based on various product categories.
- ✓ The company wants to add user control for product category, so users can select a category and can see the trend month-wise and product-wise accordingly.

References used

- Domain: E-Commerce
- Dataset Description : I am using E-Commerce Dashboard.xlsx Dataset defined in Project Statement.

WHAT HAVE DONE IN THE PROJECT :-

- ❑ **Creating Charts & Graphs in excel:** Used to express complex data in a simple format.
- ❑ **Analyzing data in excel:** Helps gain insights into the data through summaries, trends, and patterns.
- ❑ **Formatting data in excel:** To make data look more descriptive & explaining.

Problem Statement

A company wants to make user control for product categories for customers to choose a category and view month-by-month trend and product-by- product trend.

They will use Excel tools to analyze sales based on product categories and create a sales dashboard that breaks down sales by product category.

GIVEN E-COMMERCE DATA FOR VARIOUS PRODUCT CATEGORY

Field	Description
Order ID	Unique Order ID of a product
Order Date	Order Placement Date
Ship Date	Shipment Date of the placed order
Aging	Used to Create Histogram Bin
Ship Mode	Shipment mode of placed order
Product Category	Product Category
Product	Name of the Product
Sales	Sales Amount
Quantity	The amount or number of a material
Discount	A deduction from the usual cost of something
Profit	Obtain a financial advantage or benefit
Shipping Cost	The amount required to ship the placed order
Order Priority	Precedence of placed order
Customer Id	Unique Customer ID
Customer Name	Name of the Customer
Segment	Product Segment (i.e. Home Office/Corporate/Consumer etc.)
City	Unique City Name
State	Unique State Name

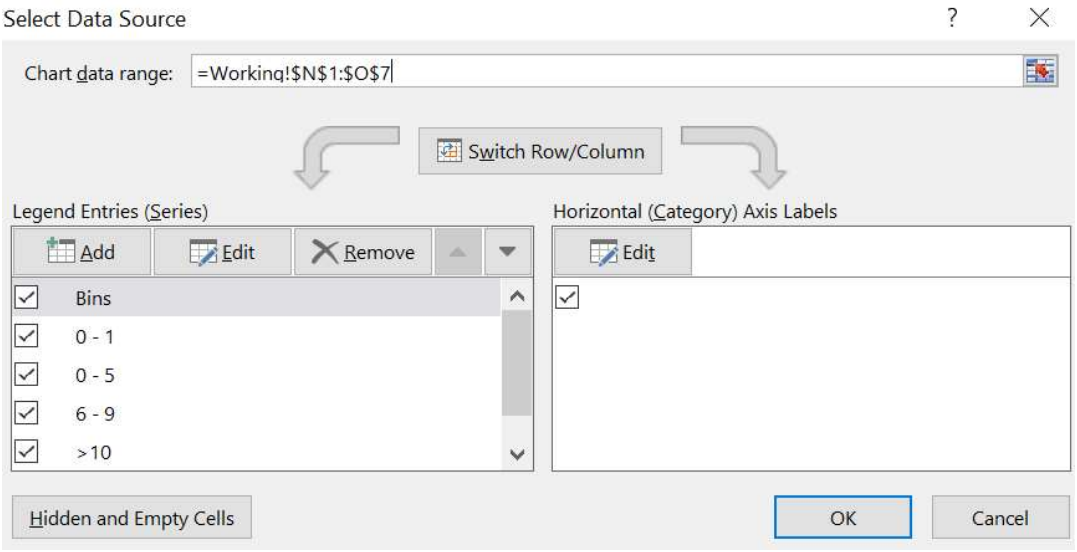
Country	Unique Country Name
Region	Especially the part of a country
Months	The month of placing the order

Steps followed to make sales dashboard

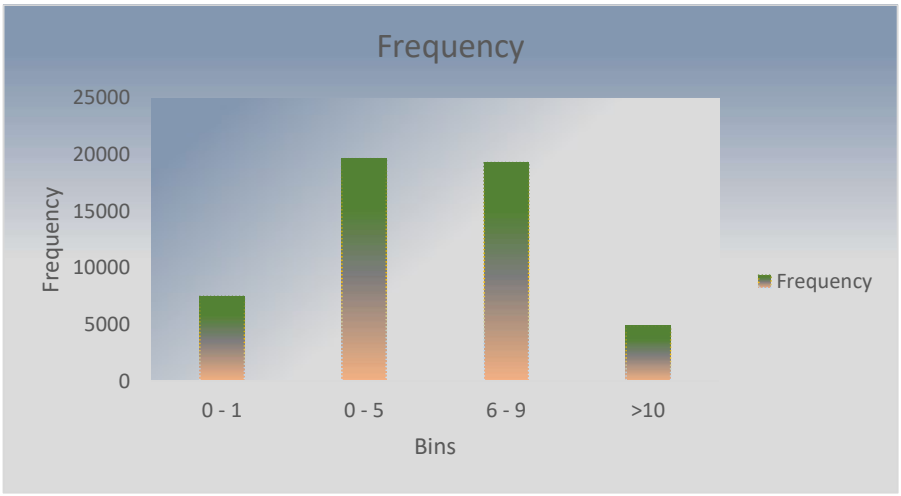
- Create a column chart of the month-wise table and region-wise table
- Link the table with a combo box
- Create a dashboard and calculate the predicted and actual tip values.
- Create a dashboard and calculate the predicted and actual tip values.
- Use the saved sample e-commerce database
- Create a Histogram for shipping days(aging)
- Prepare a table of sales and profit month-wise in the working sheet
- Prepare the sales table region-wise in the working sheet
- Create a user control combo box for the product category

❑ Sample Step Create Histogram for Shipping Days(Aging)

To create a histogram, click the on Insert, then Charts & Create a histogram after right click, select data of aging after opening a pop-up & create a Histogram.



In Sales Dashboard Aging Histogram by selecting the data from working sheet (=Working!$N$1:$O$7).



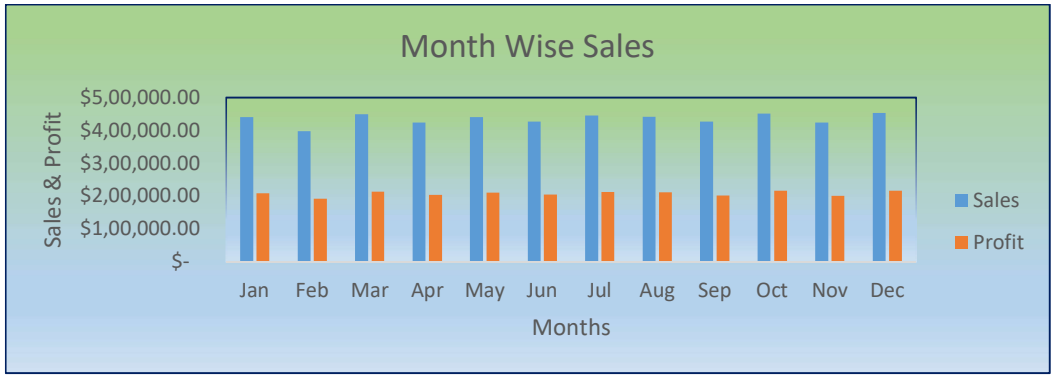
- Prepare a table of Sales and Profit month-wise in one sheet, named it as 'Working Sheet'.

CODE USED :

Filter the month wise sales & profit data as per the month given. Combined this one with product category OFFSET(I1,$J$1,0) and later linked with combo box in Dashboard Row No. 2

Months	Sales	Profit
Jan	$ 1,17,677.00	$ 53,274.41
Feb	$ 97,361.00	$ 42,988.88
Mar	$ 1,10,048.00	$ 49,264.04
Apr	$ 1,07,029.00	$ 48,286.98
May	$ 1,07,848.00	$ 47,383.34
Jun	$ 1,11,250.00	$ 48,876.38
Jul	$ 1,19,095.00	$ 53,136.99
Aug	$ 1,07,444.00	$ 47,556.99
Sep	$ 1,10,696.00	$ 50,175.66
Oct	$ 1,01,689.00	$ 44,411.79
Nov	$ 1,12,861.00	$ 49,946.88
Dec	$ 1,16,409.00	$ 52,295.31
TOTAL	$ 13,19,407.00	$ 5,87,597.65

After that create a Month wise sales & profit Histogram. First tab on insert than in charts tab clicked on bar graph. Graph diagram opened up after right click selected data, a pop window appears to select data. Data selected from Working sheet (=Working!A1:C13) & created a Histogram given below.



Product Category	3
Auto & Accessories	Home & Furniture
Electronic	
Home & Furniture	
Fashion	

- Prepare the sales table region-wise in the working sheet.

CODE USED :

Sales = OFFSET(I1,$J$1,0) and later linked with combo box in Dashboard Row No. 2.

Filter the region wise data as per the month given. Combined this one with product category using Code : OFFSET(I1,$J$1,0) and later linked with combo box in Dashboard Row No. 2

Regions	Sales
Africa	$ 1,23,087.00
Canada	$ 11,413.00
Caribbean	$ 47,569.00
Central	$ 2,78,301.00
Central Asia	$ 55,886.00
East	$ 68,939.00
EMEA	$ 1,31,180.00
North	$ 1,20,926.00
North Asia	$ 61,194.00
Oceania	$ 1,00,477.00
South	$ 1,75,766.00
Southeast Asia	$ 67,711.00
West	$ 76,958.00
TOTAL	$ 13,19,407.00

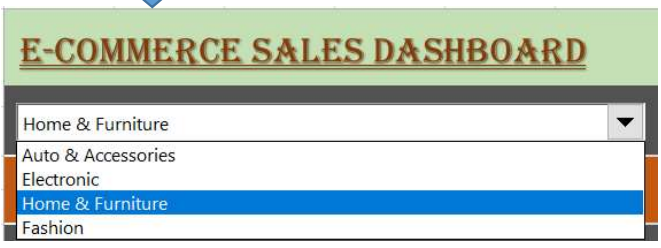
Product Category	3
Auto & Accessories	Home & Furniture
Electronic	
Home & Furniture	
Fashion	

- Create a User Control Combo box for Product Category.

In working Sheet

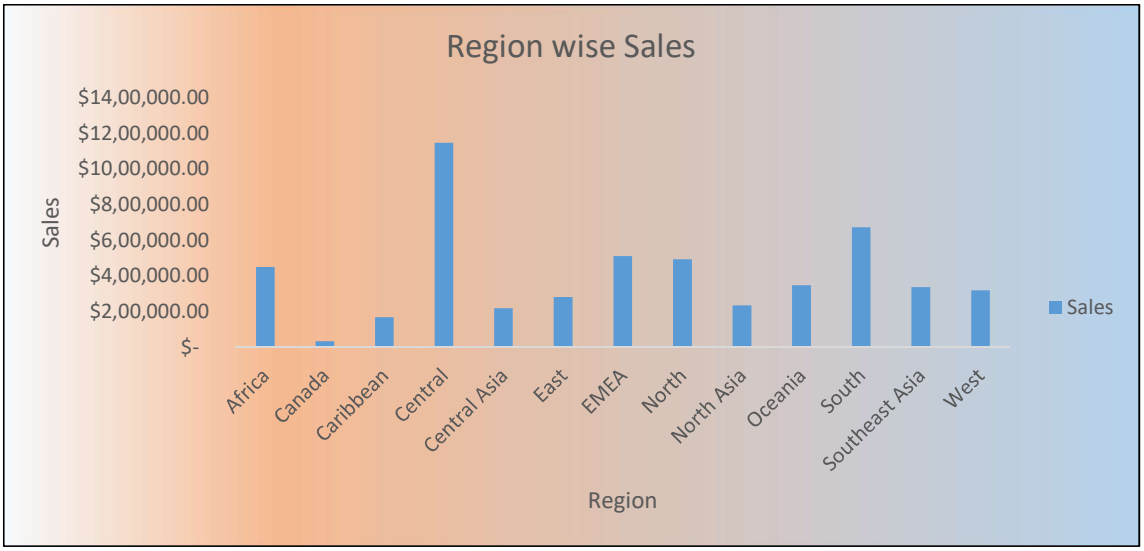
Product Category	3
Auto & Accessories	Home & Furniture
Electronic	
Home & Furniture	
Fashion	

In Dashboard Sheet



Code Used : Box Shown above values gets populated accordingly as 1,2,3,4 respectively from various categories as shown above = OFFSET(I1,$J$1,0)

After that create a Region wise Histogram. First tab on insert than in charts tab clicked on bar graph. Graph diagram opened up after right click selected data, a pop window appears to select data. Data selected from Working sheet (=Working!E1:F14) & created a Histogram given below.



CREATE A SALES DASHBOARD

Created Dashboard as per the requirement of Problem Statement.

- ❑ Making a new sheet name Dashboard.
- ❑ Insert a drop down box combined with product category
- ❑ Insert three Formulas for :

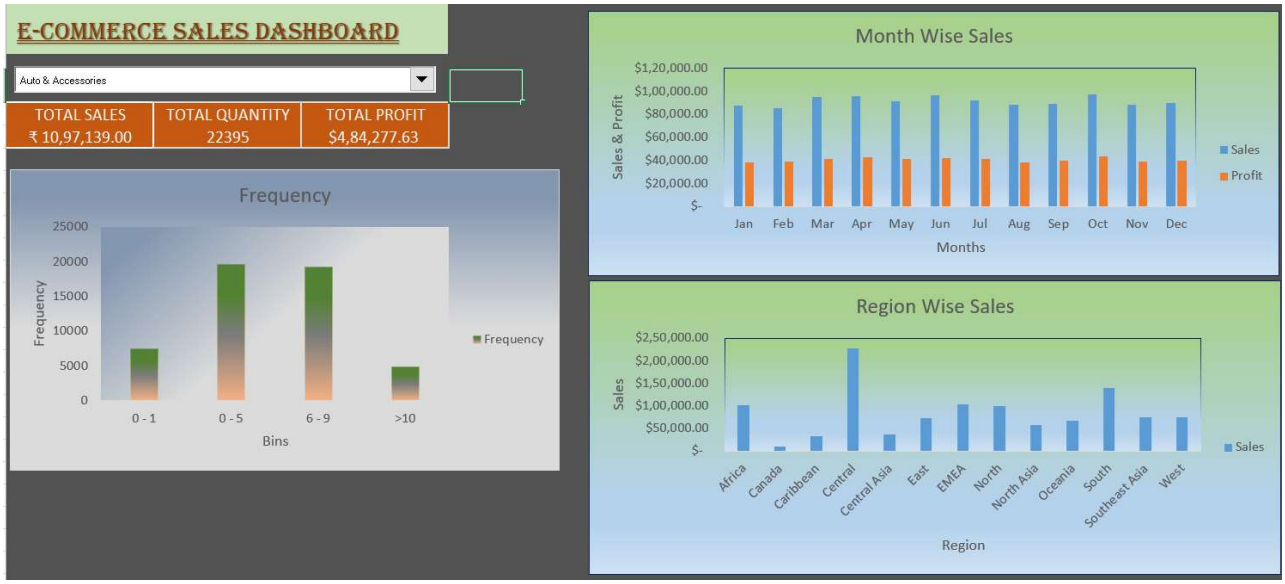
a.) Total Sales = SUMIFS('Sales Data'!$H$2:$H$51291,'Sales Data'!$T$2:$T$51291,Working!E2,'Sales Data'!$F$2:$F$51291,$J$2) (=Working!B14),

b.) Total Quantity= (=SUMIFS('Sales Data'!I2:I51291,'Sales Data'!F2:F51291,$J$2)) (=Working!G2) &

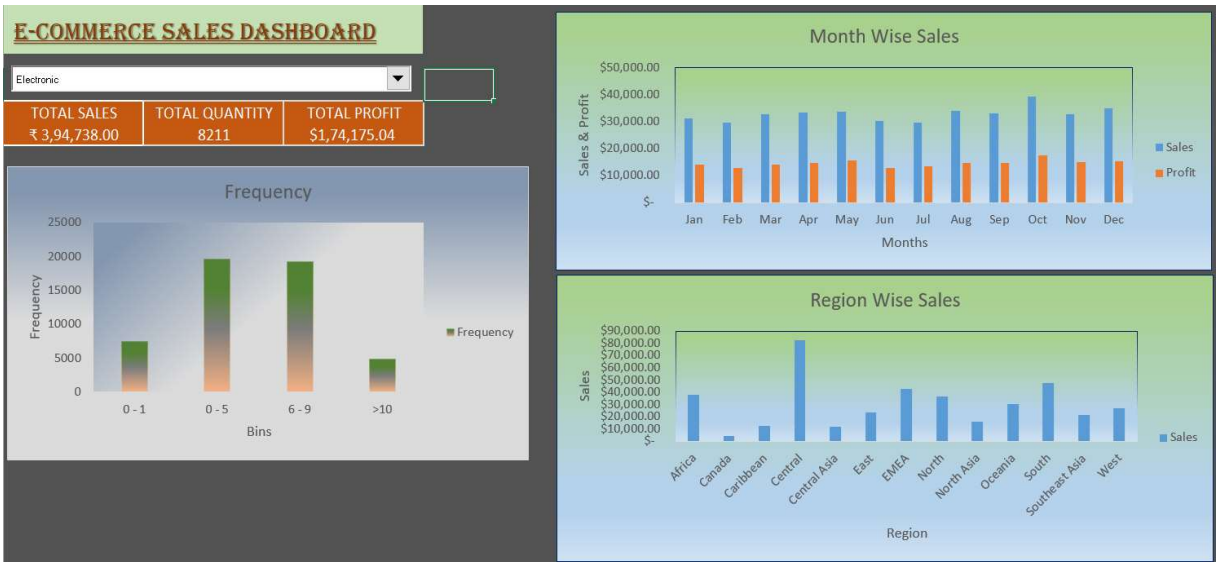
c.) Total Profit=(=SUMIFS(Profit,'Sales Data'!$U$2:$U$51291,Working!A2,'Sales Data'!$F$2:$F$51291,$J$2)) (=Working!C14).

- ❑ Inserting Histograms for :-
  a. Month wise sales & profit
  b. Region wise sales
  c. Histogram for aging.

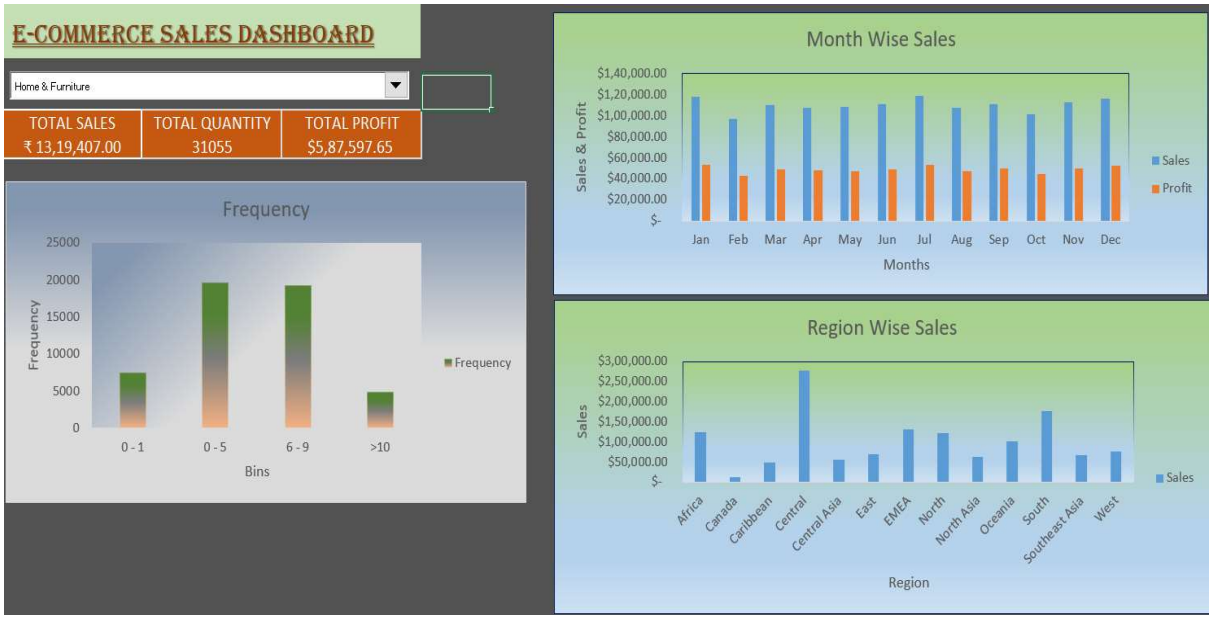
❑ Dashboard For Product Auto & Accessories



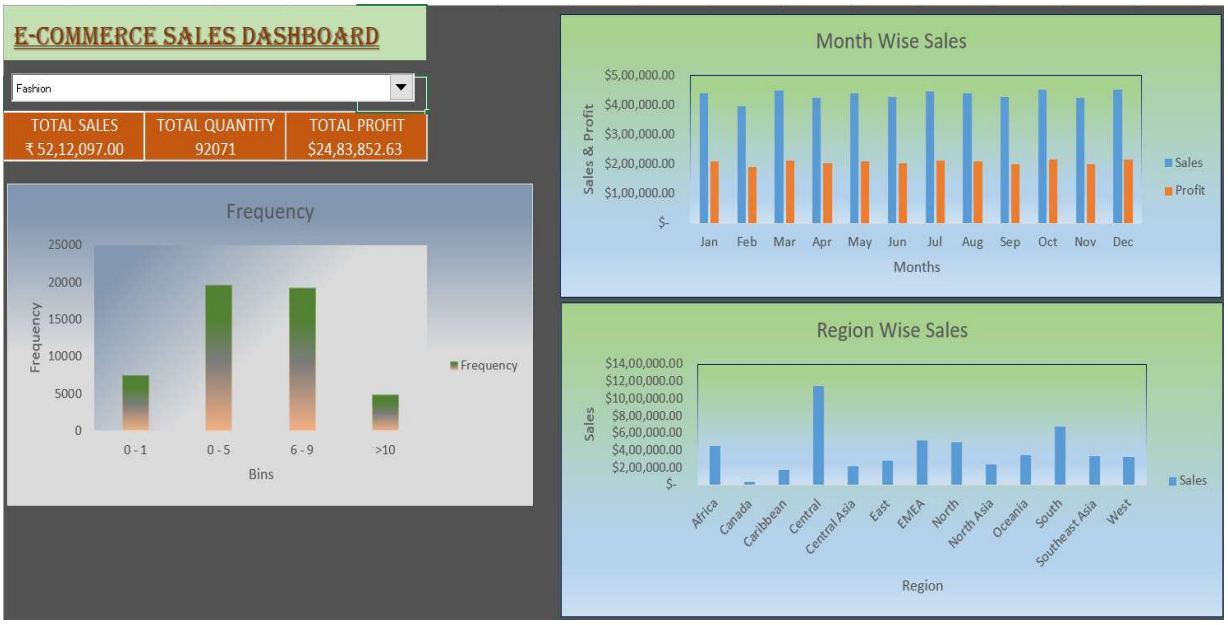
❑ Dashboard For Product Electronics



❑ Dashboard For Home & Furniture



❑ Dashboard For Fashion Product Category



NOTE : I have also attached my excel sheet of Sales Dashboard in the last option source Code.. Where I have done all the workings and created a dashboard too with all the tables shown as per requirements.