

Project Title	E-commerce Dashboard
Technologies	Excel
Domain	E-commerce
Project Difficulties level	Advanced

Problem Statement:

E-commerce (electronic commerce) is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet. These business transactions occur either as business-to-business (B2B), business-to-consumer (B2C), consumer-to-consumer or consumer-to-business.

Business Scenario

The Analytics team of an Online E-Commerce Company wants to design a Sales dashboard to 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.

The Analytics team also wants to create a histogram to analyze number of shipping days.

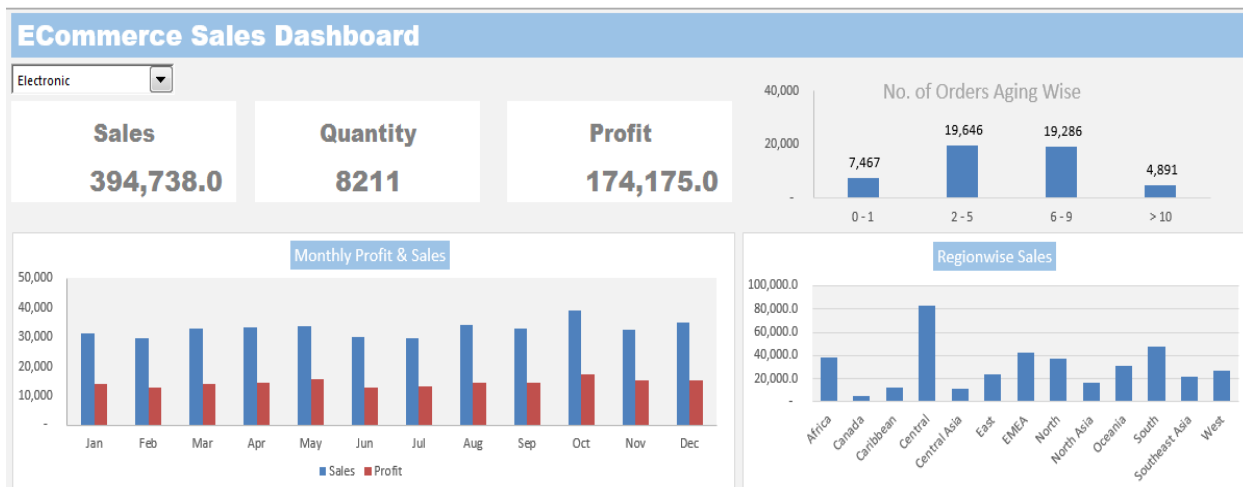
The company's database keeps track of the following data fields:

Brand Name, Company Name, Disease Medical Use, Invoice date, Company code, Ship-to-Country, Ship-to-Country Full Name, Sold-to party- Code, Sold-to party Country, Sold-to party Country Full Name, Delivery Plant, Payment terms, External Agent, Sales quantity, Price TC /Kg, Revenue, External commissions, Month.

Overview

- Use the Saved Sample – E-Commerce database.
- Prepare a table of Sales and Profit month-wise in working sheet.
- Prepare the sales table region-wise in the working sheet.
- Create User Control Combo box for Product Category.
- Create Column Chart of month-wise table and region-wise table.
- Link the table with combo box.

- Create a dashboard.

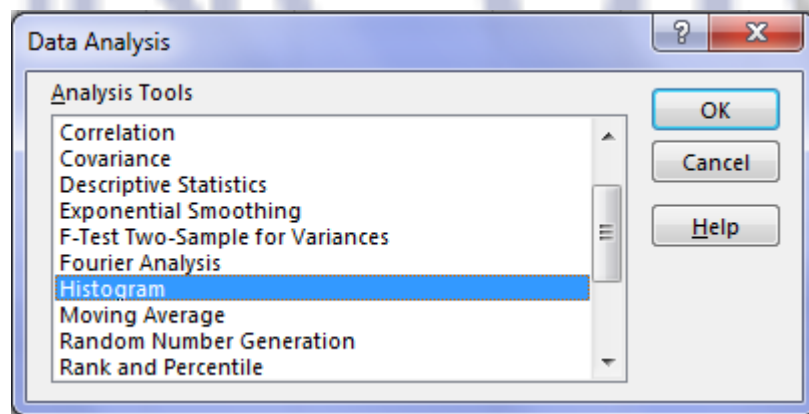


Steps:

Step1: Create Histogram for Shipping Days(Aging)

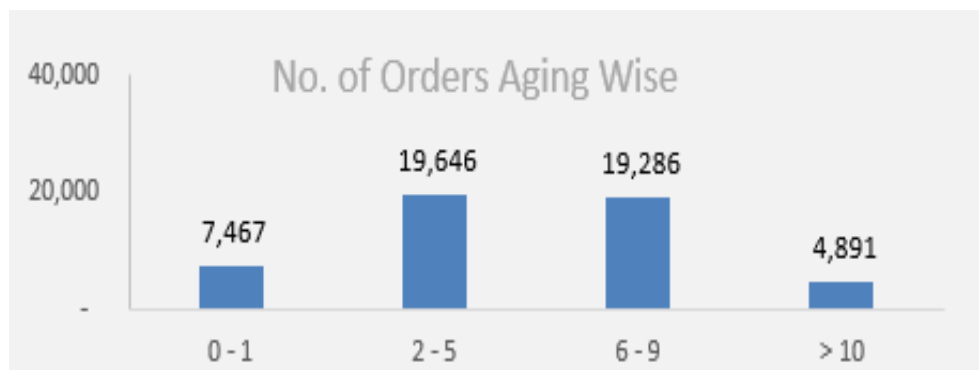
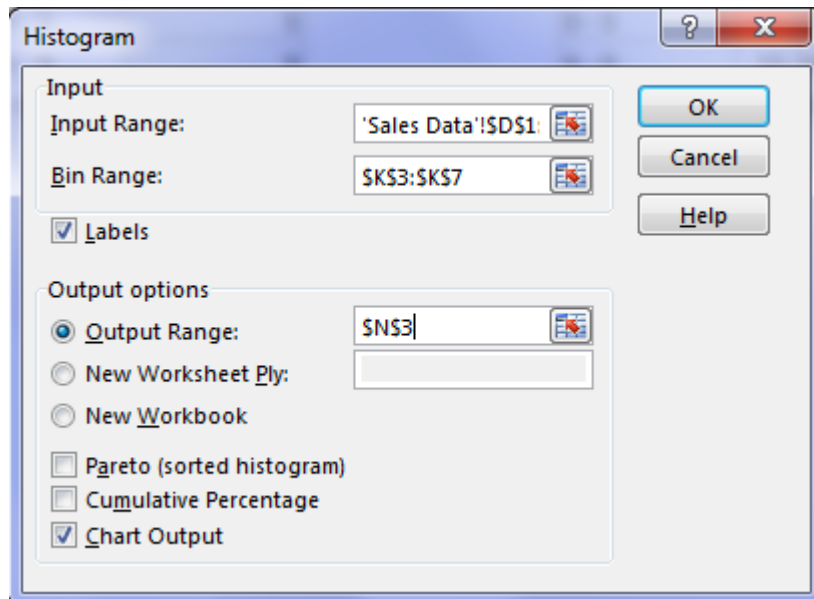
To create histogram, click the Data Tab, Under Analysis Group (Right Corner), Click Data Analysis.

Now, select Histogram and click ok. A histogram dialog box will appear.



In the histogram dialog box, first click the Label's Check box as we have labels in our data. After that, In the **Input reference box** select the range ("**Sales Data!D1:D51291**") of our data and in the **Bin Range Reference box** select ("**Working!K3:K7**").

In **Output section**, select range "Working!N3" for binning table, click Histogram check box and then ok.

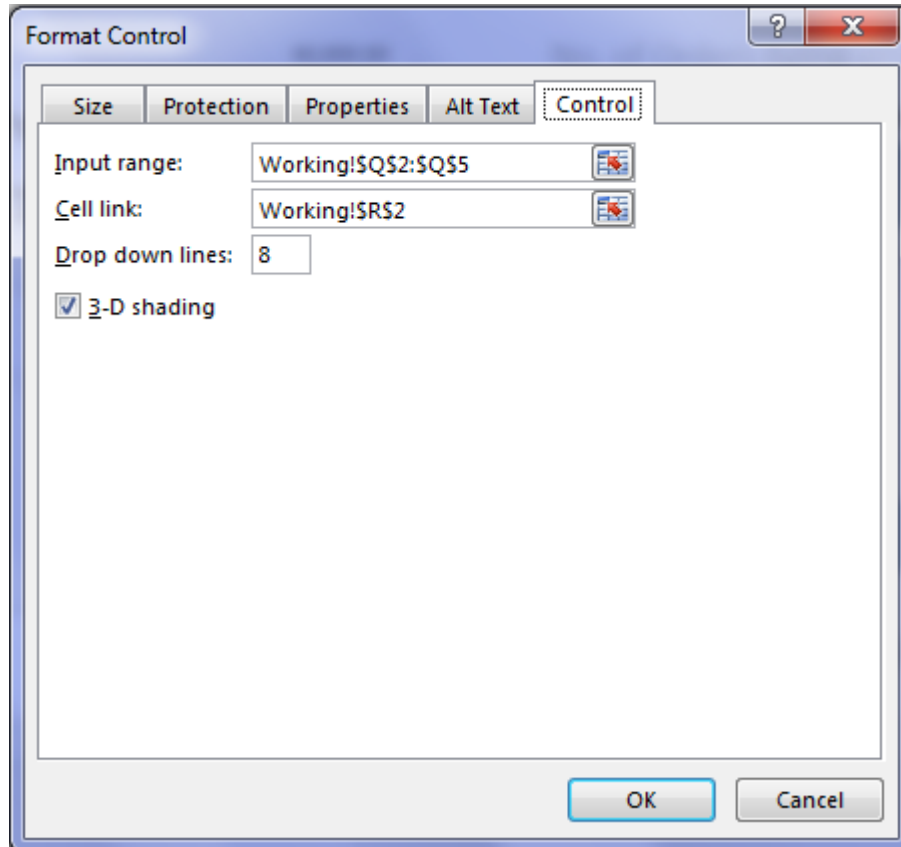


Step2 - Create Combo Box:

- Insert Combo box for product category list in the Dashboard Sheet.
- Click Developer Tab > Under Controls Panel > Click Combo box and draw.

Pass the Input Range and Cell for the Combo box.

- Right-click the country list Combo box > Click Format Control > Under Format Control Panel, Pass Input Range "Working!Q2:Q5" and Cell Link "Working!R2" from the working sheet.



Now, write the offset function in cell “R3” to fetch the product category based on the selection in the product category Combo box.

- Write the equal sign and then the function name.
- Pass the first argument as Cell “\$Q\$1.”
- In the second argument, select the cell link cell “\$R\$2.”

Step3: SUMIFS formula to calculate Total Sales, Quantity, and Profit

Now, write Sumifs formula to calculate Sales, Quantity, and Profit in the Dashboard sheet.

Enter the formula in Cell C7:

- Enter the equal sign and then enter the function name and open parenthesis.
- Pass the first Argument is Sum_Range, select range ‘Sales Data’!\$H:\$H, and then enter comma.
- Now, pass the second argument Product Category column “criteria Range1” as ‘Sales Data’!\$F:\$F, enter comma
- Pass the third argument “criteria1” “Working!\$R\$3”, and enter comma.

6	
7	=SUMIFS('Sales Data'!\$H:\$H,'Sales Data'!\$F:\$F,Working!\$R\$3)
8	SUMIFS(sum_range, criteria_range1, criteria1, [criteria_range2, criteria2], ...)

Perform the same function to calculate the Quantity in Cell G7.

- In G7, write the equal sign, and then enter the function name and open parenthesis.
- The first Argument is Sum_Range, select range 'Sales Data'!\$I:\$I, and then enter comma.
- Now, pass the second argument Product Category column "criteria Range1" as 'Sales Data'!\$F:\$F, and enter comma.
- Pass the third argument "criteria1" "\$R\$3," and enter comma.

For Profit

- In K7, write the equal sign and then enter the function name and open parenthesis.
- The first Argument is Sum_Range, select range 'Sales Data'!\$K:\$K, and then enter comma.
- Pass the second argument Product Category column "criteria Range1" as 'Sales Data'!\$F:\$F, and enter comma.
- Now, pass the third argument "criteria1" "\$R\$3", and enter comma.

Step4: SUMIFS formula to calculate Sales and Profit month wise

Now write the sumifs formula to calculate the Sales and profit month-wise and sales region-wise.

Enter formula in Cell C4:

- Enter the equal sign and then enter the function name and open parenthesis.
- The first Argument is Sum_Range, select range 'Sales Data'!\$H:\$H, and then enter comma.
- Pass the second argument month column "criteria Range1" as 'Sales Data'!\$U:\$U, and enter comma.
- Now, pass the third argument "criteria1" "\$B\$4," and enter comma.
- Pass the fourth argument as Data!\$F:\$F product category column, and enter comma.

- Pass the fifth argument as “\$R\$3.”
- Now, copy and paste the formula in Range C4:C15.

Enter formula in Cell D4:

- Enter Equal sign then enters function name and open parenthesis
- The first Argument is Sum_Range, select range ‘Sales Data’!K:K, and then enter comma.
- Now, pass the second argument month column “criteria Range1” as ‘Sales Data’!U:U, and enter comma.
- Pass the third argument “criteria1” “\$B\$4,” and enter comma.
- Pass the fourth argument as Data!F:F product category column, and enter comma.
- Enter the fifth argument as “\$R\$3.”
- Now, copy and paste the formula in Range D4:D15.

Months	Sales	Profit	Regions	Sales
Jan	=SUMIFS('Sales Data'!\$H\$1:\$H\$65536,'Sales Data'!\$U\$1:\$U\$65536,'Working (2)'!\$B4,'Sales Data'!\$F\$1:\$F\$65536,\$R\$3)			
Feb	29,776		Canada	
Mar	32,800		Caribbean	
Apr	33,417		Central	
May	33,705		Central Asia	
Jun	30,219		East	
Jul	29,644		EMEA	
Aug	34,088		North	
Sep	33,069		North Asia	
Oct	39,240		Oceania	
Nov	32,598		South	
Dec	34,902		Southeast Asia	
			West	

Step5: SUMIFS formula to calculate Sales region wise

- Write the equal sign and then enter the function name and open parenthesis.
- The first Argument is Sum_Range, select range ‘Sales Data’!H:H, and then enter comma.
- Pass the second argument region column “criteria Range1” as ‘Sales Data’!T:T, and enter comma.

- Now, pass the third argument “criteria1” “\$F\$4,”and enter comma.
- Pass, the fourth argument as Data!F:F product category column, and enter comma.
- Pass the fifth argument as “\$R\$3.”
- Now, copy and paste the formula in Range G4:G15.

Step 6: Create Column Chart

Now, create the column chart for both region-wise and month-wise table.

Select table (B3:D15), click insert tab > under Charts Panel > Insert column chart.

Cut and Paste the chart in the Dashboard Sheet.

Perform the same steps for other tables to create chart.

Now, this is our sales Dashboard, we can apply any color in the interior of cells, and data series to format it.

Note: The dataset required for this project can be accessed from the “Download Center.”

Dataset:

Datasets are available in zip files. Google Drive links have been shared below:

<https://drive.google.com/drive/folders/1tbkYiO17DHpm428WwXKyCAwqrqNAgzzF?usp=sharing>

Project Evaluation metrics:

Code: As per the requirements

- You are supposed to write a code in a modular fashion
- Safe: It can be used without causing harm.
- Testable: It can be tested at the code level.
- Maintainable: It can be maintained, even as your codebase grows.
- Portable: It works the same in every environment (operating system)
- You have to maintain your code on GitHub.
- You have to keep your GitHub repo public so that anyone can check your code.

- Proper readme file you have to maintain for any project development.
- You should include basic workflow and execution of the entire project in the readme file on GitHub
- Follow the coding standards: <https://www.python.org/dev/peps/pep-0008/>

Database:

- You are supposed to use a given dataset for this project.

<https://drive.google.com/drive/folders/1tbkYiO17DHpm428WwXKyCAwgrqNAgzzF?usp=sharing>

Submission requirements:**High-level Document:**

You have to create a high-level document design for your project. You can reference the HLD form below the link.

Demo link:

[HLD Document Link](#)

Low-level document:

You have to create a Low-level document design for your project; you can refer to the LLD from the below link.

Demo link:

[Low Level Design Sample document link](#)

Architecture:

You have to create an Architecture document design for your project; you can refer to the Architecture from the below link.

Demo Link:

[Architecture Document Link](#)

Wireframe:

You have to create a Wireframe document design for your project; refer to the Wireframe from the below link.

Demo link

[Wire-frame link](#)

Project work:

You will have to share the Tableau Public Link of your work

You have to submit your code GitHub repo in your dashboard when the final submission of your project.

Demo link

[Project code sample link :](#)

Detail project report:

You have to create a detailed project report and submit that document as per the given sample.

Demo link

[DPR sample link](#)

Project demo video:

You have to record a project demo video for at least 5 Minutes and submit that link as per the given demo.

Demo link

[Project sample link :](#)

The project LinkedIn a post:

You have to post your project detail on LinkedIn and submit that post link in your dashboard in your respective field.



Demo link

[Linkedin post sample link :](#)

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