DATA AND
ARTIFICIAL INTELLIGENCE

Business Analytics with Excel Certification Training

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Designing a Sales Dashboard in Excel

Objectives

- To analyze the sales based on various product categories
- To enable the users to be able to pick a product category and see trends month-by-month and product-by-product

Prerequisites

- Creating charts and graphs in Excel
- Analyzing data in Excel
- Formatting data in Excel

Industry Relevance

- **Creating charts and graphs in excel:** It is used to help express complex data in a simple format.
- **Analyzing data in excel:** It helps gain insights into the data through high-level visual summaries, trends, and patterns.
- **Formatting data in excel:** It helps to make data look more interesting and descriptive.

Problem Statement

A company wishes to add user control for product categories for customers to choose a category and view the trend month-by-month and product-by-product. They will use Excel to analyze sales based on product categories and create a sales dashboard that breaks down sales by product category.

Dataset Description

Variable	-	Description
• Order ID	-	Unique order ID of a productGender
• 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

Dataset Description

Variable	-	Description
• Discount	-	A deduction from the usual cost of something
• Profit	-	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
• 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

Tasks to Perform

Perform the below tasks on the dataset provided using Excel:

1. Use the saved sample e-commerce database
2. Create a Histogram for shipping days(aging)
    - To create a histogram, click the Data tab, under the analysis group, and click on Data analysis.
    - Now, select histogram and click ok. A histogram dialog box will appear.
    - In the histogram dialog box, first, click the Label's checkbox as you have labels in your 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 the output section, select the range "Working!N3" for a binning table, click the histogram checkbox, and then ok.

Tasks to Perform

3. Prepare a table of sales and profit month-wise in the working sheet
4. Prepare the sales table region-wise in the working sheet
5. Create a user control combo box for the product category
    - Insert combo box for the product category list in the dashboard sheet
    - Pass the input range and cell for the combo box
    - Pass input range “Working!Q2:Q5” and cell link “Working!R2” from the working sheet
    - Write the equal sign and then the function name
    - Pass the first argument as Cell “Q1”
    - In the second argument, select the cell “R2”
    - In the third argument, type zero and close the parenthesis

Tasks to Perform

6. Create a column chart of the month-wise table and region-wise table
7. Link the table with a combo box
8. Create a dashboard and calculate the predicted and actual tip values.
9. Calculate the RMSE (Root mean square error) of the model.

Project Outcome

- The aim of the project is to analyze the sales based on various product categories.
- The users should be able to pick a product category and can see trends month-by-month and product-by-product.

Submission Process

1. Complete each task listed in the problem statement
2. Take screenshots of the results for each question and the corresponding code
3. Save it as a document and submit using the assessment tab
4. Tap the "Submit" button (this will present you with three choices)
5. Attach three files and then click "Submit“

Note: Be sure to include screenshots of the output

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Thank You

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