

Power BI Project Solution

About Dataset:

The Customers Banking Details dataset contains information on customers' banking details, including their customer ID, name, surname, gender, age, country, state, job classification, marital status, account type, date joined, balance, house loan, and other loan details. The dataset appears to be focused on banking and financial activities.

Data Size:

We chose a dataset of 250 rows and 19 columns related to the banking domain for our Power BI dashboard project. This size of data is ideal to reduce optimization performance and increase the readability of the end-users. However, learners can use up to 1000 rows of data. The dataset includes various fields such as customer details, banking information, and transactional data. The dashboard will provide visual insights into customer demographics, account types, balance amounts, and loan details to help make informed decisions

Project Tasks:

A. Data Cleaning

1. Display the new data types for each column in the dataset after applying changes in Power Query.

Hint: Use the "Change Type" option in Power Query to alter data types for each column.

2. Recreate the Name column in Power Query by capitalizing each word.

Hint: Use the "Transform Data" tab and the "Capitalize Each Word" option to display the "Name" column in capitalized format for each word.

3. How can you merge the "Name" and "Surname" columns in the Customers Banking Details dataset using a space separator?
Hint: Use the "Add Column" tab and the "Merge Columns" option to combine the "Name" and "Surname" columns using a space separator.
4. Show the number of duplicate values removed from the dataset using Power Query.
Hint: Use the "Remove Duplicates" option in Power Query to remove duplicate values from the dataset.
5. How can you remove blank rows from the Customers Banking Details dataset?
Hint: Use the "Transform Data" tab and the "Remove Rows" option to select the "Remove Blank Rows" option to remove any blank rows from the dataset.
6. How can you join the bank details with the customer details in the Customers Banking Details dataset based on the customer ID?
Hint: Use the "Combine Data" tab and the "Merge Queries" option to join the bank details with the customer details based on the customer ID.
7. Explain how to use the Power Query Date function to extract the Year, Month & Day from a date column in the dataset.
Hint: Access the "Transform Data" tab in Power Query and choose the "Date. Year" function to extract the Year from a date column.
8. How can you round up the total balance to the nearest whole number in the Customers Banking Details dataset?
Hint: Use the "Add Column" tab and the "Round" option to round up the total balance to the nearest whole number.

B. Data view

- Display all geographical datasets in Power BI along with their corresponding data categories, such as city, country, state, and region.
Hint: To show geographic data with its categories like city, country, state, and region, use Power BI's map visual. It's an easy and effective way to analyze and display geographical information.

C. Visual Insights

1. How can you display the count of customers and the total balance amount using card visuals?
Visual Used : Card Visuals
Hint: Drag and drop the "Count of Customer" and "Sum of Balance Amount" fields onto the card visual in the report.
2. How can you use a slicer to filter customer names in the report?
Visual Used : Slicer
Hint: Add the "Customer Names" field to the slicer and use it to filter the report by customer name.
3. How can you display the account types and their total balance amounts in a pie chart?
Visual Used : Pie Chart
Hint: Add the "Account Type" field to the legend and the "Sum of Balance Amount" field to the values in the pie chart.
4. How can you show the distribution of balance amounts by gender in a donut chart?
Visual Used : Donut Chart
Hint: Add the "Gender" field to the legend and the "Sum of Balance Amount" field to the values in the donut chart.

5. How can you display the total balance amounts by marital status using a stacked bar chart?

Visual Used: Stacked Bar Chart

Hint: Add the "Marital Status" field to the Y-axis and the "Sum of Balance Amount" field to the X-axis in the stacked bar chart.

6. How can you visualize the total balance amounts by job classification and state in a stacked area chart?

Visual Used : Stacked Area Chart

Hint: Add the "Job classification" field to the X-axis, the "Sum of Balance Amount" field to the Y-axis, and the "State" field to the legend in the stacked area chart.

7. How can you view the number of customers by age group in a clustered column chart?

Visual Used: Clustered Column Chart

Hint: Add the "Age group" field to the X-axis and the "Count of Customer ID" field to the Y-axis in the clustered column chart.

8. How can you add the company name and logo to the Power BI report?

Visual Used: Text Box.

Hint: Use the text box visual and insert the logo image and type the company name as the text.

D. Published Report

- Power BI reports can be published and shared with others, making it easy to collaborate and work with others on data analysis projects.

Hint: Power BI's ability to publish and share reports facilitate seamless collaboration and teamwork in data analysis projects.