Tech Saksham

Case Study Report

Data Analytics with Power BI

Real-Time Analysis of Bank Customers

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ABSTRACT

In the realm of Digital Life, data stands out as one of the most valuable assets across all industries.

Particularly within the Banking Sector, it holds paramount importance in the generation of novel ideas and informed decision-making processes.

This underscores the significance of analytics, which plays a pivotal role in guiding various decisions.

Within this context, a critical aspect involves the real-time analysis of customer data to glean deeper insights for better decision-making.

Leveraging software such as Power BI enables a data-driven exploration of customer behavior, preferences, transactions, demographics, and more.

This analytical endeavor not only enhances understanding but also fosters innovations, boosts profits, and enhances overall efficiency.

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CHAPTER 1

INTRODUCTION

1.1 Problem Statement

In many various sectors have problem with the efficiency of a customer behavior, preferences. This will play a major role in Banking Sector. However, this problem creating a crucial effect of banking history. Traditional data analysis has a problem with this trend which is rapidlychanging, time consuming and lack to provide insightful solution.

1.2 Proposed Solution

The proposed solution is Software's to create insightful real-time analytics. In this project we using a oneof powerful Analytical tool called Power BI. We have to real-time dashboard ofa bank customers data with Power BI. Using this tool, we can analyze the data for customer preferences and tailoring the User Experience for the customers.

1.3 Feature

➢ Real-Time Analysis: The dashboard will provide a real-time analysisof customer data

➢ Customer Segmentation: It will segment customers based on various parameters like age, gender, behavior, etc.

➢ Predictive Analysis: It will use previous data to forecast the customer behavior.

➢ Trend Analysis: The dashboard will display the trends of customer behavior.

1.4 Advantages

➢ Data-Driven Decisions: Banks can make insightful decisions with real-time data.

➢ Increased Efficiency: From the analytics the we can get the efficiencyof handling the customer's data.

➢ Increased Revenue: By Identifying the flaws, we can grow the trust of customers and increasing the revenue.

1.5 Scope

➢ The Scope of the project is widely used for all sector other than banking.

➢ This project can be extended for more data resources.

➢ We can also build stronger analytics with data.

CHAPTER 2

SERVICES AND TOOLS REQUIRED

Tools:

➢ Power BI: The main tool for this project Power BI, which is use to create interactive dashboards for real-time data visualization.

➢ Power Query: This is a data connection technology that enables you to discover, connect, combine, and refine data across a wide variety of source.

Software Requirements:

➢ Power BI Desktop: This is a windows application that you can create reports and publish them to Power BI.

➢ Power BI Service: This is an Online SaaS (Software as a Service) Service that you use to publish reports, create new dashboards, and share insights.

➢ Power BI Mobile: This is a mobile application that you can use to access your reports and dashboards on the go.

CHAPTER 3

PROJECT ARCHITECTURE

3.1 Architecture
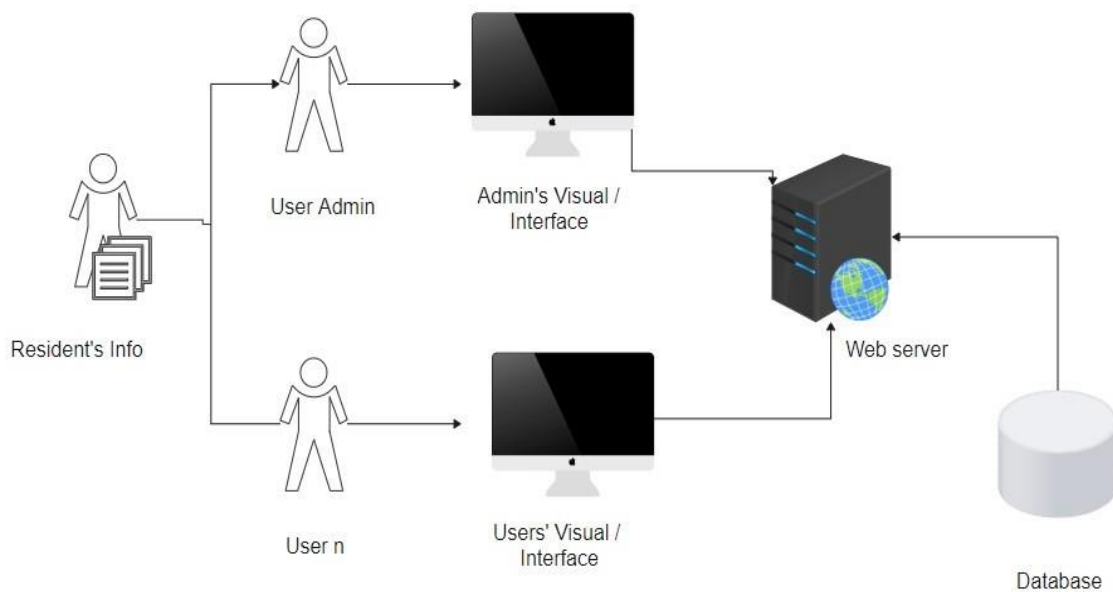
➢ Data Collection: Real-time customer data collected from various sources(transactions, web interaction).

➢ Data Storage: Collected Data is stored in database and Servers.

➢ Data Processing: Non sensitive data is processed to take analysis.
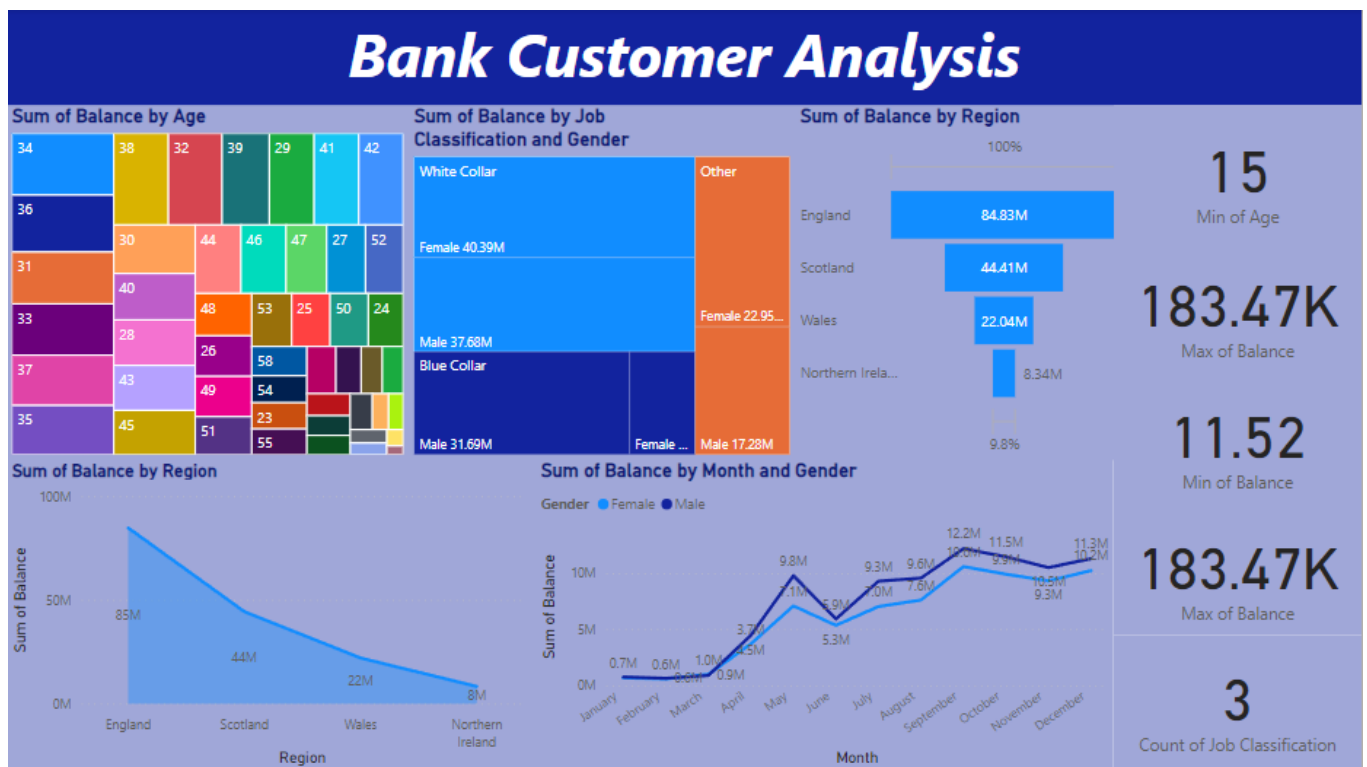
➢ Analytics : Processed Data is analyzed by experts.

CHAPTER 4

MODELING AND RESULT

Manage Relationship

In this Project CSV file with name 'Real-TimeAnalysis of Bank Customers' is added for analytics.

Dashboard

CONCLUSION

The implementation of the project "Real-Time Analysis of Bank Customers" using **Power BI** has been completed successfully, enabling us to draw significant insights from our dashboard. Leveraging real-time data, we have acquired a wealth of valuable information crucial for insightful analytics into customer behavior and preferences, thereby facilitating enhancements in our efficiency and personalized customer experiences.

This project has notably bolstered our capacity to deliver efficient services to our customers. Moreover, it underscores the importance of simplifying complex data into easily understandable terms. The presented data is not only comprehensible but also visually appealing, ensuring clarity and accessibility for all stakeholders.

FUTURE SCOPE

The execution of the "Real-Time Analysis of Bank Customers" project through Power BI has achieved success, allowing us to extract key insights from our dashboard. Utilizing real-time data, we've gained valuable information essential for insightful analysis into customer behavior and preferences, leading to improvements in our efficiency and the enhancement of personalized customer experiences.

This initiative has significantly strengthened our ability to deliver efficient services to our clientele. Furthermore, it emphasizes the importance of simplifying intricate data into easily understandable formats. The data presented is both clear and visually engaging, ensuring accessibility and comprehension for all involved parties.

REFRENCE

https://powerbi.microsoft.com/en-us/desktop/

LINK

https://github.com/TSelvan8784/NM_Report