# EXCEL DASHBOARDS AND POWER BI REPORTS

## PROJECT 2

project work done in partial fulfillment of **DATA ANALYST INTERNSHIP WITH VIGOR COUNCIL**

Submitted by: SWEETY

Designation: Data analyst intern

Vigor Council

## SUMMARY

During my data analyst internship with Vigor Council, I had the opportunity to create impactful dashboards using both Excel and Power BI. Here are the key highlights of my experience:

**Excel Dashboards:**

Leveraged Excel's powerful features to design interactive dashboards.

Created dynamic charts, pivot tables, and slicers to visualize data trends.

Developed KPI dashboards for tracking performance metrics.

Collaborated with stakeholders to ensure the dashboards met their specific needs.

**Power BI Reports:**

Designed visually appealing reports using Power BI. Connected to various data sources, transformed data, and built data models. Developed interactive visualizations, including bar charts, line graphs, and maps. Implemented drill-through functionality for deeper insights.

# INSIGHTS AND IMPACT:

Analyzed data to identify patterns, anomalies, and actionable insights.

Presented findings to the team, enabling data-driven decision-making.

Contributed to improving business processes and optimizing performance.

Overall, my internship at Vigor Council provided hands-on experience in data visualization, dashboard creation, and data-driven storytelling. I look forward to applying these skills in future roles.

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# SOME EXCEL DASHBAORDS

Project 02- Part 01

PROJECT SUMMARY: Simple **SALES DATA ANALYSIS**

The Sales dataset provides information on sales transactions, including date, product, category, region, sales amount, and quantity sold. Our goal is to analyze this data using pivot tables, charts, and dashboards to address specific business questions:

1. Total Sales by Product Category: Calculate total sales for each product category.
2. Average Sales by Region: Determine average sales amounts in each region.
3. Quantity Sold by Product and Region: Break down quantity sold for each product across regions.
4. Total Sales Over Time: Track sales trends over time (daily, weekly, or monthly).
5. Sales Performance of Each Product: Compare total sales and quantity sold for individual products.

These insights will guide data-driven decision-making within the organization.

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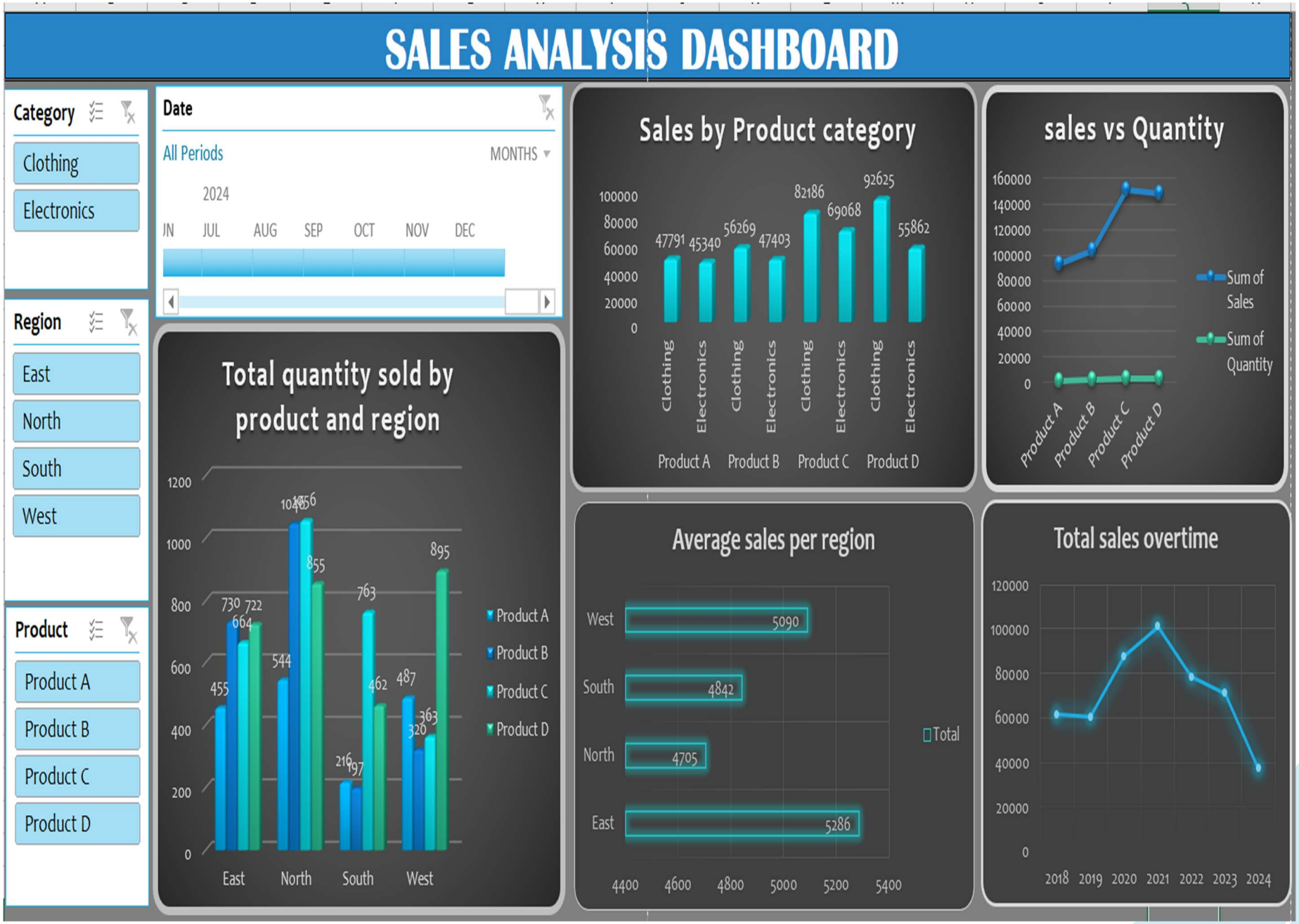


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Project 02- part 2- **Advanced Excel Dashboards**

PROJECT REPORT: **HEALTHCARE DATA ANALYSIS USING MS EXCEL**

**Objective**: To analyze and visualize healthcare data to gain insights into treatment costs, patient demographics, and medical conditions.

**Key Insights:**

- Average Treatment Cost by Gender: Compare costs between male and female patients to identify gender-based differences.
- Distribution of Patients by Age Group: Visualize patient demographics by age brackets.
- Average Treatment Cost by Insurance Type: Analyze costs based on different insurance types.
- Most Common Medical Conditions: Identify the most frequent health issues among patients.

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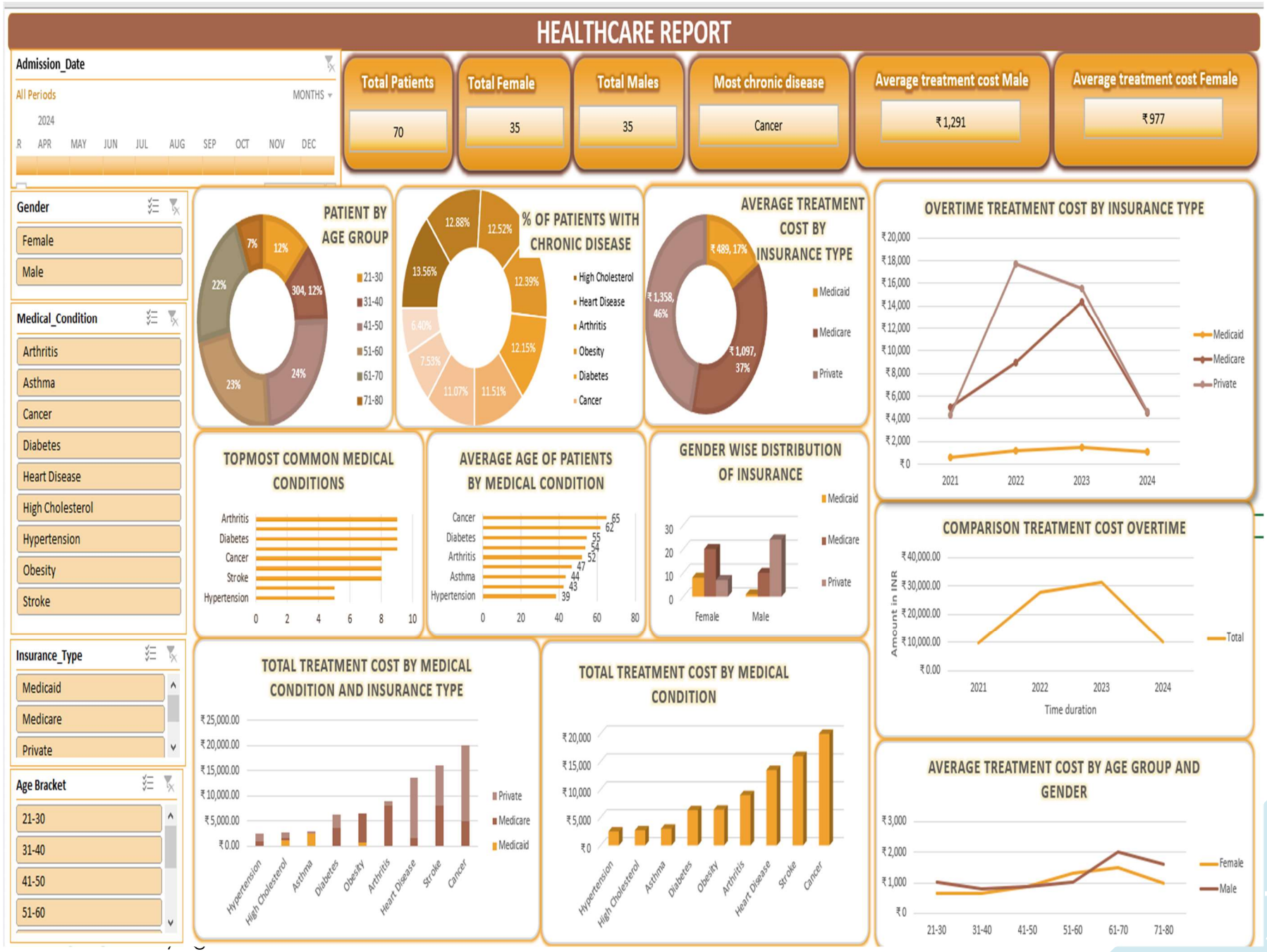
HEALTHCARE REPORT
Admission_Date
All Periods
MONTHS
2024
APR MAY JUN JUL AUG SEP OCT NOV DEC
Total Patients
70
Total Female
35
Total Males
35
Most chronic disease
Cancer
Average treatment cost Male
₹1,291
Average treatment cost Female
₹977
Gender
Female
Male
Medical_Condition
Arthritis
Asthma
Cancer
Diabetes
Heart Disease
High Cholesterol
Hypertension
Obesity
Stroke
Insurance_Type
Medicaid
Medicare
Private
Age Bracket
21-30
31-40
41-50
51-60
PATIENT BY AGE GROUP
7%
12%
304, 12%
24%
23%
22%
21-30
31-40
41-50
51-60
61-70
71-80
% OF PATIENTS WITH CHRONIC DISEASE
12.88%
12.52%
12.39%
12.15%
11.51%
11.07%
7.53%
6.40%
13.56%
High Cholesterol
Heart Disease
Arthritis
Obesity
Diabetes
Cancer
AVERAGE TREATMENT COST BY INSURANCE TYPE
₹ 489, 17%
₹ 1,358, 46%
₹ 1,097, 37%
Medicaid
Medicare
Private
OVERTIME TREATMENT COST BY INSURANCE TYPE
₹ 20,000
₹ 18,000
₹ 16,000
₹ 14,000
₹ 12,000
₹ 10,000
₹ 8,000
₹ 6,000
₹ 4,000
₹ 2,000
₹ 0
2021
2022
2023
2024
Medicaid
Medicare
Private
TOPMOST COMMON MEDICAL CONDITIONS
Arthritis
Diabetes
Cancer
Stroke
Hypertension
0 2 4 6 8 10
AVERAGE AGE OF PATIENTS BY MEDICAL CONDITION
Cancer 65
Diabetes 62
Arthritis 55
Asthma 54
Hypertension 52
47
44
43
39
0 20 40 60 80
GENDER WISE DISTRIBUTION OF INSURANCE
30
20
10
0
Female
Male
Medicaid
Medicare
Private
COMPARISON TREATMENT COST OVERTIME
₹ 40,000.00
₹ 30,000.00
₹ 20,000.00
₹ 10,000.00
₹ 0.00
Amount in INR
2021
2022
2023
2024
Time duration
Total
TOTAL TREATMENT COST BY MEDICAL CONDITION AND INSURANCE TYPE
₹ 25,000.00
₹ 20,000.00
₹ 15,000.00
₹ 10,000.00
₹ 5,000.00
₹ 0.00
Hypertension
High Cholesterol
Asthma
Diabetes
Obesity
Arthritis
Heart Disease
Stroke
Cancer
Private
Medicare
Medicaid
TOTAL TREATMENT COST BY MEDICAL CONDITION
₹ 20,000
₹ 15,000
₹ 10,000
₹ 5,000
₹ 0
Hypertension
High Cholesterol
Asthma
Diabetes
Obesity
Arthritis
Heart Disease
Stroke
Cancer
AVERAGE TREATMENT COST BY AGE GROUP AND GENDER
₹ 3,000
₹ 2,000
₹ 1,000
₹ 0
21-30
31-40
41-50
51-60
61-70
71-80
Female
Male

PROJECT REPORT: **INSURANCE DATA ANALYSIS USING MS EXCEL**

Project Overview: This project involves analyzing an insurance dataset using MS Excel to visualize various insights. The goal is to understand the factors influencing insurance charges.

**Key Analyses:**

- Age Distribution: Histogram to visualize age demographics.
- BMI Distribution: Histogram to display BMI distribution.
- Gender Distribution: Bar chart to represent gender distribution.
- Effect of Variables on Charges: Scatter plots and bar charts to analyze the relationship between age, BMI, number of children, smoker status, region, and insurance charges.

Advanced Analyses:

- Correlation Matrix: To see correlations between variables.
- Regression Analysis: To predict insurance charges based on multiple variables.

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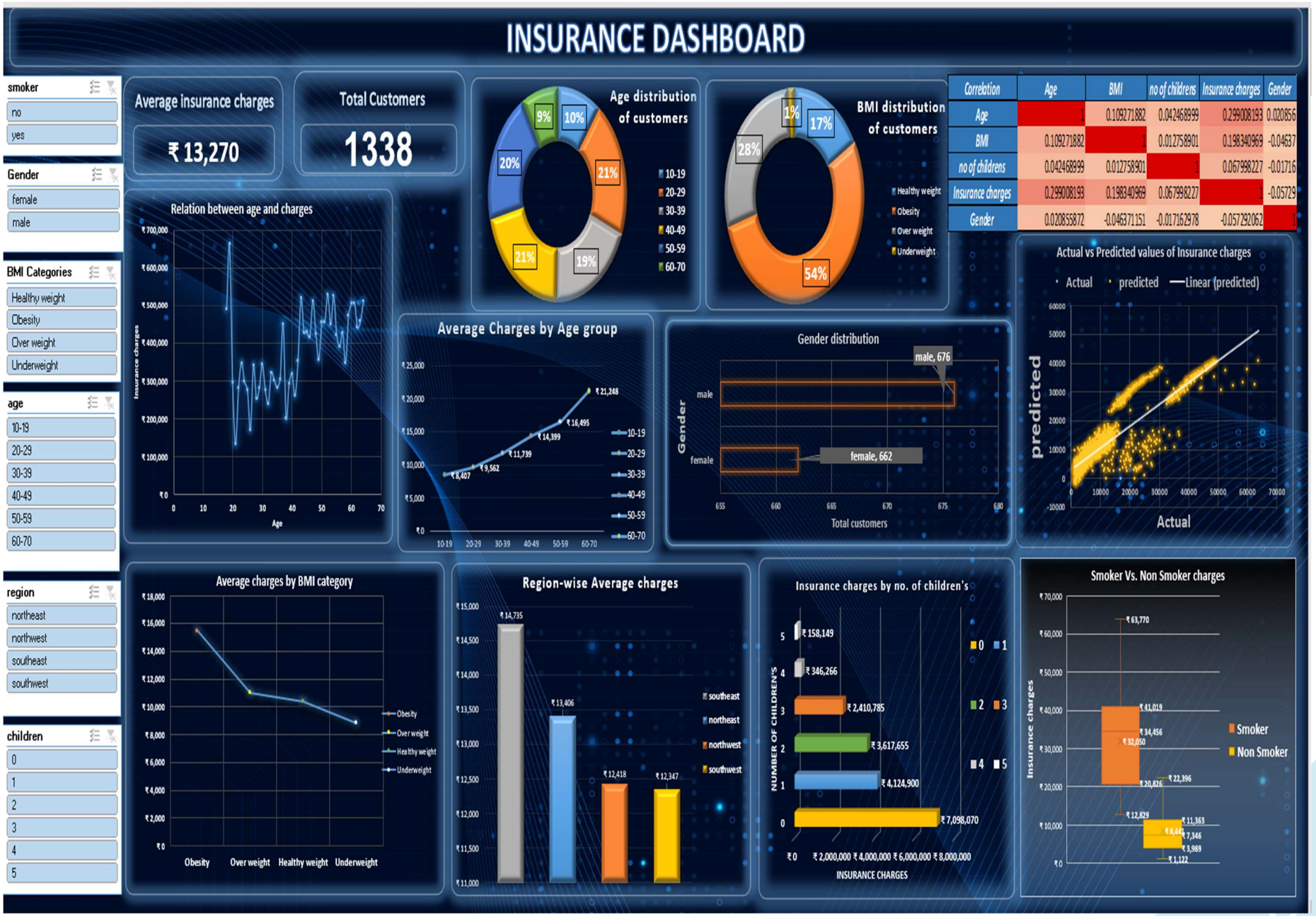


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# Project 2- part 3- **Power BI reports**

**Part 3 include 2 reports**

## Report 1: Basic Insights

**Account Balance Distribution by Account Type:** Compare balances between savings and checking accounts1.

**Transaction Trend Over Time:** Show transaction amount variations over time.

**Top Customers by Transaction Amount:** Identify customers with the highest transaction amounts2.

**Transaction Type Distribution**: Analyze the proportion of withdrawals and deposits.

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## Report 2: Key Performance Indicators (KPIs)

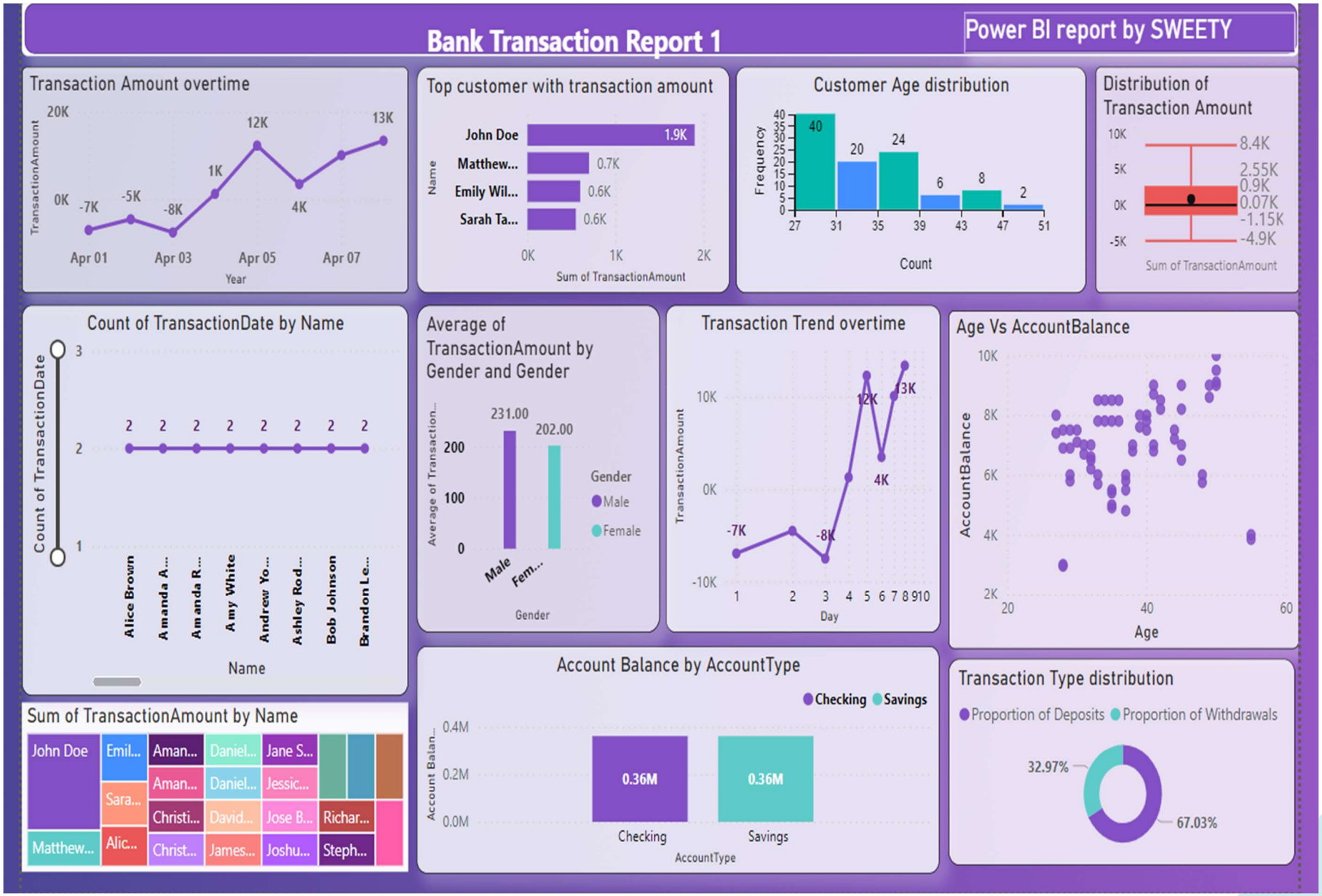
**Average Account Balance:** Overview of financial stability.

Total Deposits and Withdrawals: Sum of all deposits and withdrawals34.

**Net Cash Flow:** Total deposits minus total withdrawals.

**Customer Acquisition and Retention Rates:** Measure growth potential and customer loyalty.

These reports provide comprehensive insights into customer transactions, account balances, demographics, and key performance metrics.

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## Conclusion and Acknowledgments

### Key Takeaways

In this project, we explored data using Excel and Power BI, uncovering valuable insights. Our findings contribute to informed decision-making and process optimization.


### Acknowledgment

I extend my heartfelt gratitude to the following individuals and organizations:

**Dr. B.P Sharma**: Thank you for your guidance, feedback, and support throughout this journey.


### Connect with Me

If you found this work valuable, feel free to follow me on LinkedIn or GitHub:

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