

Insurance Analytics

Utilizing Excel, Power BI, Tableau, and MySQL
for Data-Driven Insights

Group - 2

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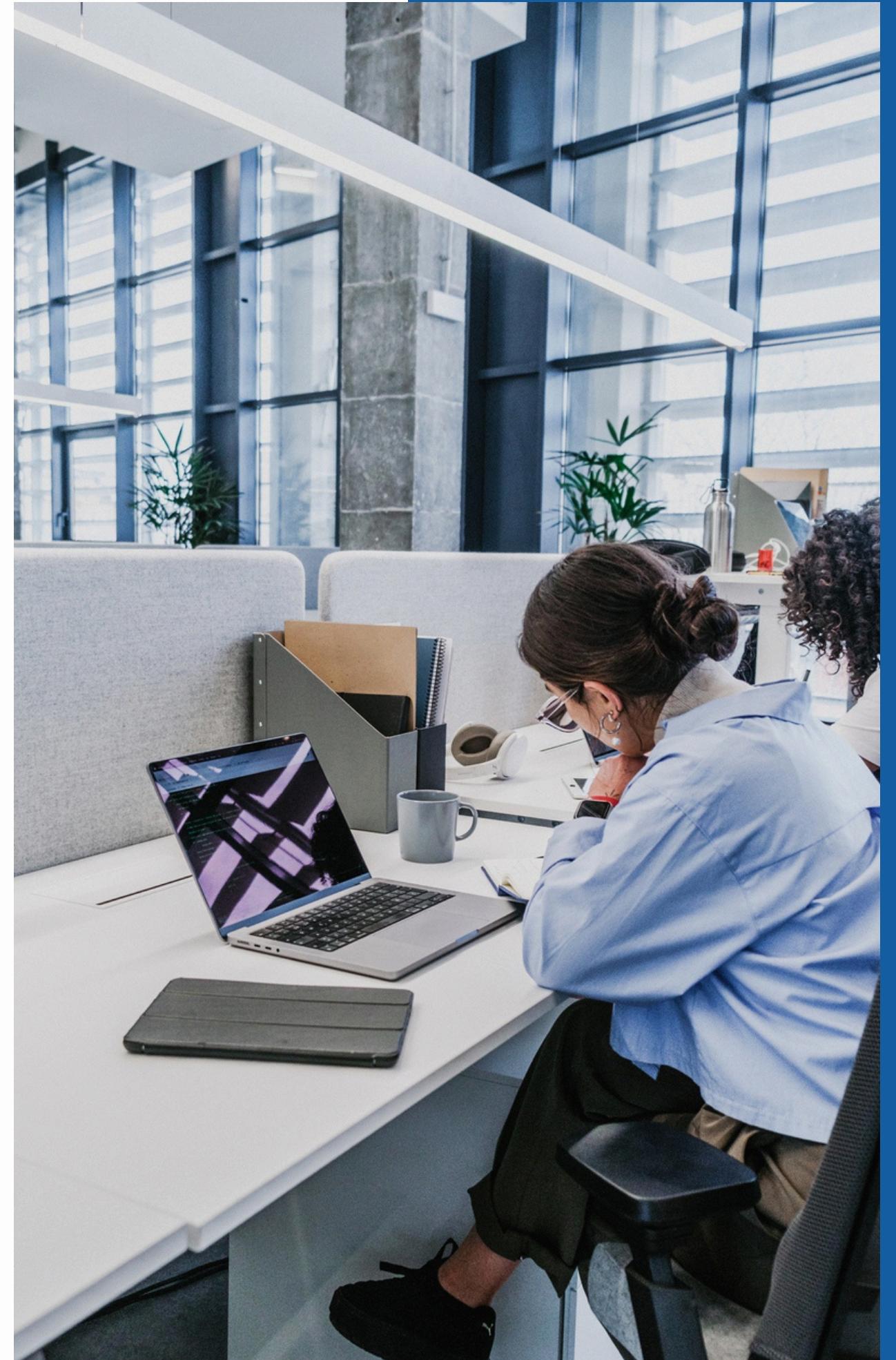
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Project Overview

This project focuses on analyzing insurance-related data using **MySQL, Power BI, and Tableau** to derive actionable business insights. The objective is to support data-driven decision-making for improving policy management, branch performance, and customer satisfaction.



TOOLS USED:

MICROSOFT
EXCEL

MYSQL

MICROSOFT
POWER BI

TABLEAU

Branch Dashboard KPI

- New & Renewal Business Performance (by branch)
- Target vs. Achievement (New, Cross-sell, Renewal)
- Placed Business & Brokerage Fees
- Meetings & Conversion Ratios
- Top 10 Open & Won Opportunities

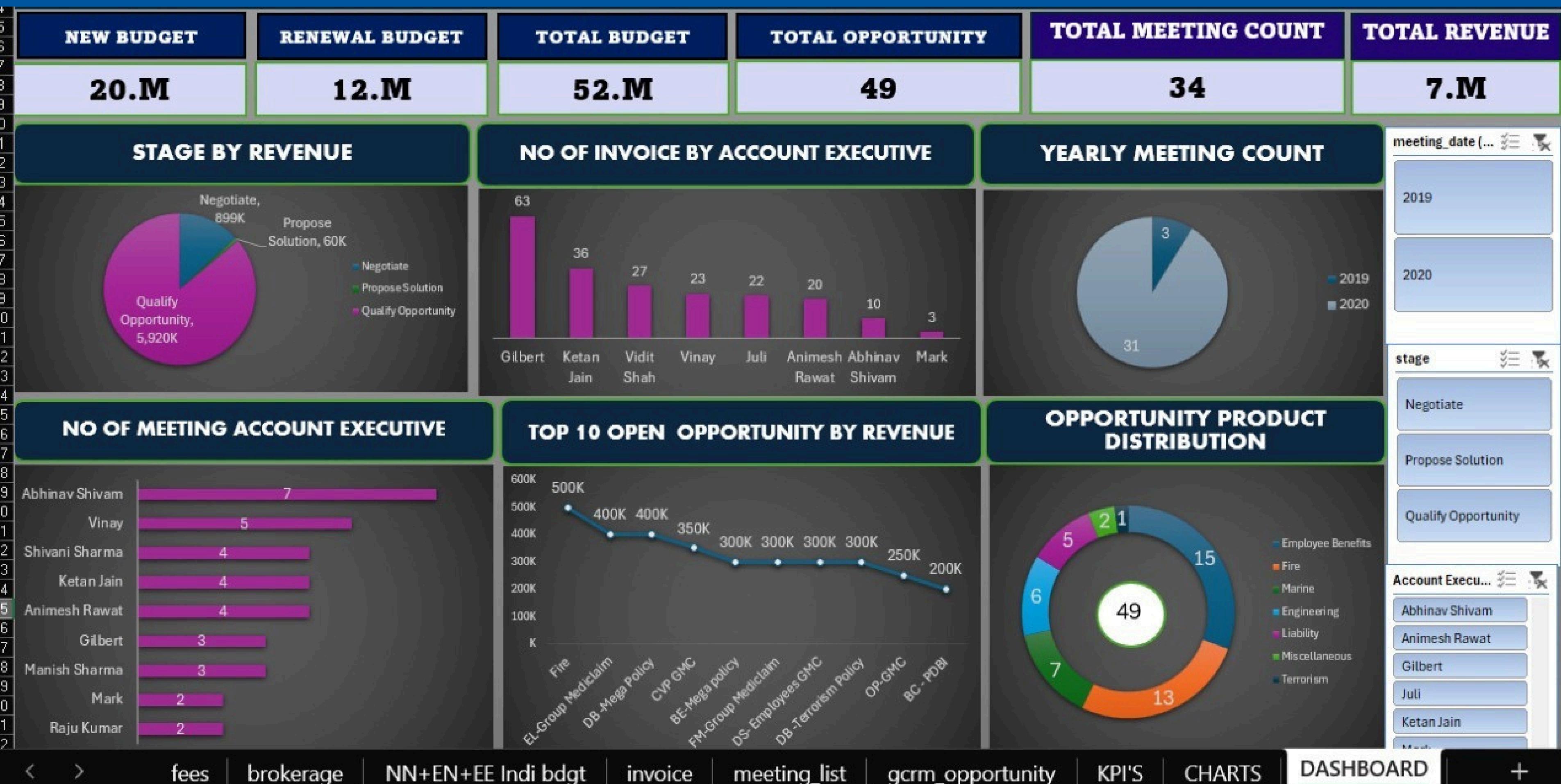


Policy Dashboard KPI

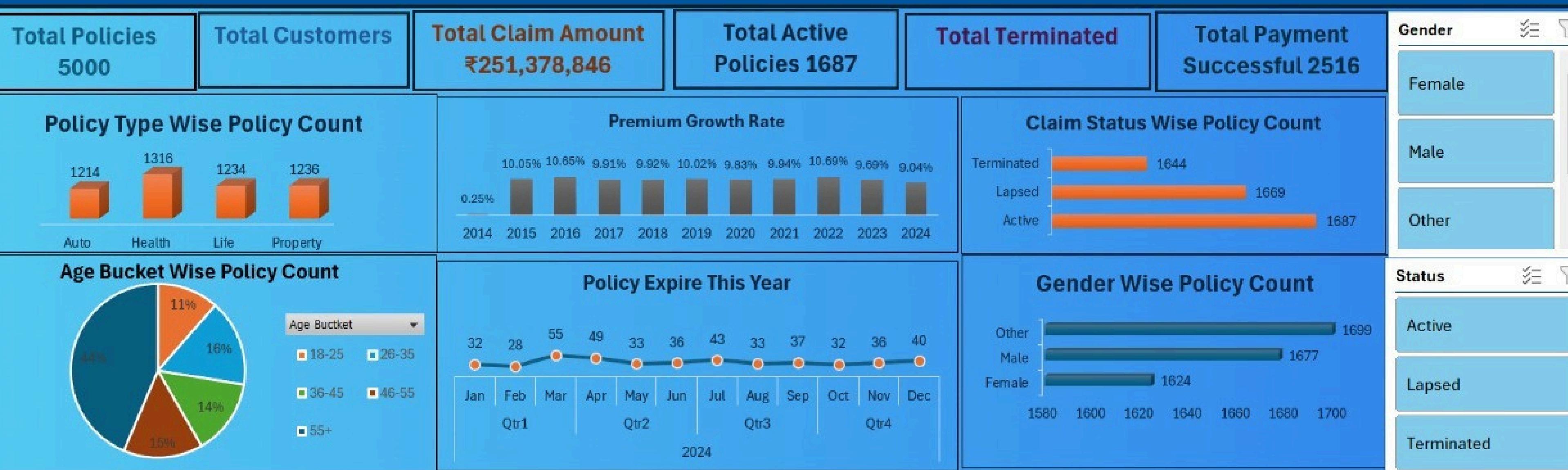
- Total Policies & Customers
- Policy Distribution by Age & Gender
- Expiring Policies This Year
- Premium Growth Rate
- Claim & Payment Status Tracking
- Total Claim Amount Analysis



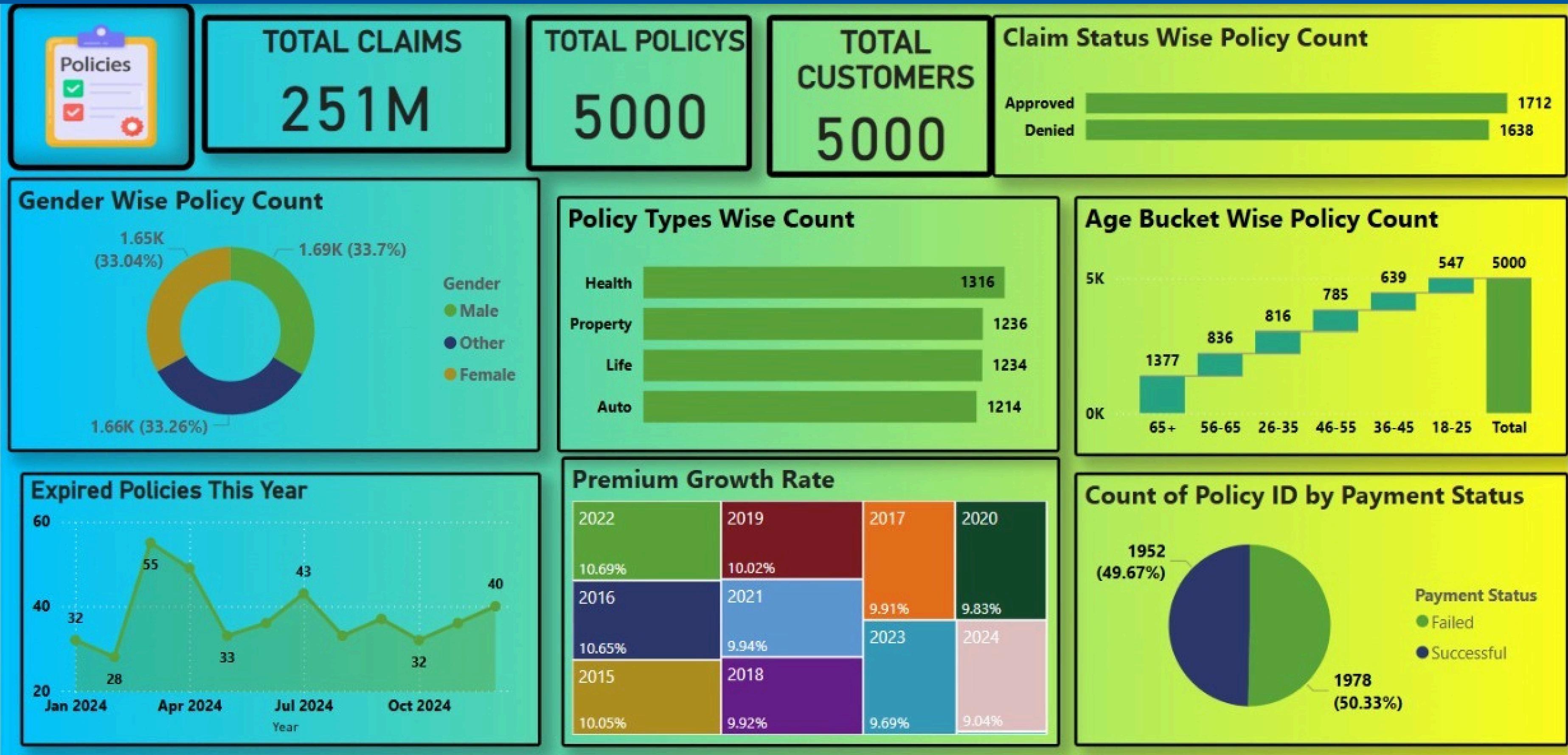
Excel - Branch Insurance Dashboard



Excel - Policy Dashboard



Power BI - Policy Dashboard



Power BI - Branch Insurance Dashboard



Tableau - Policy Dashboard

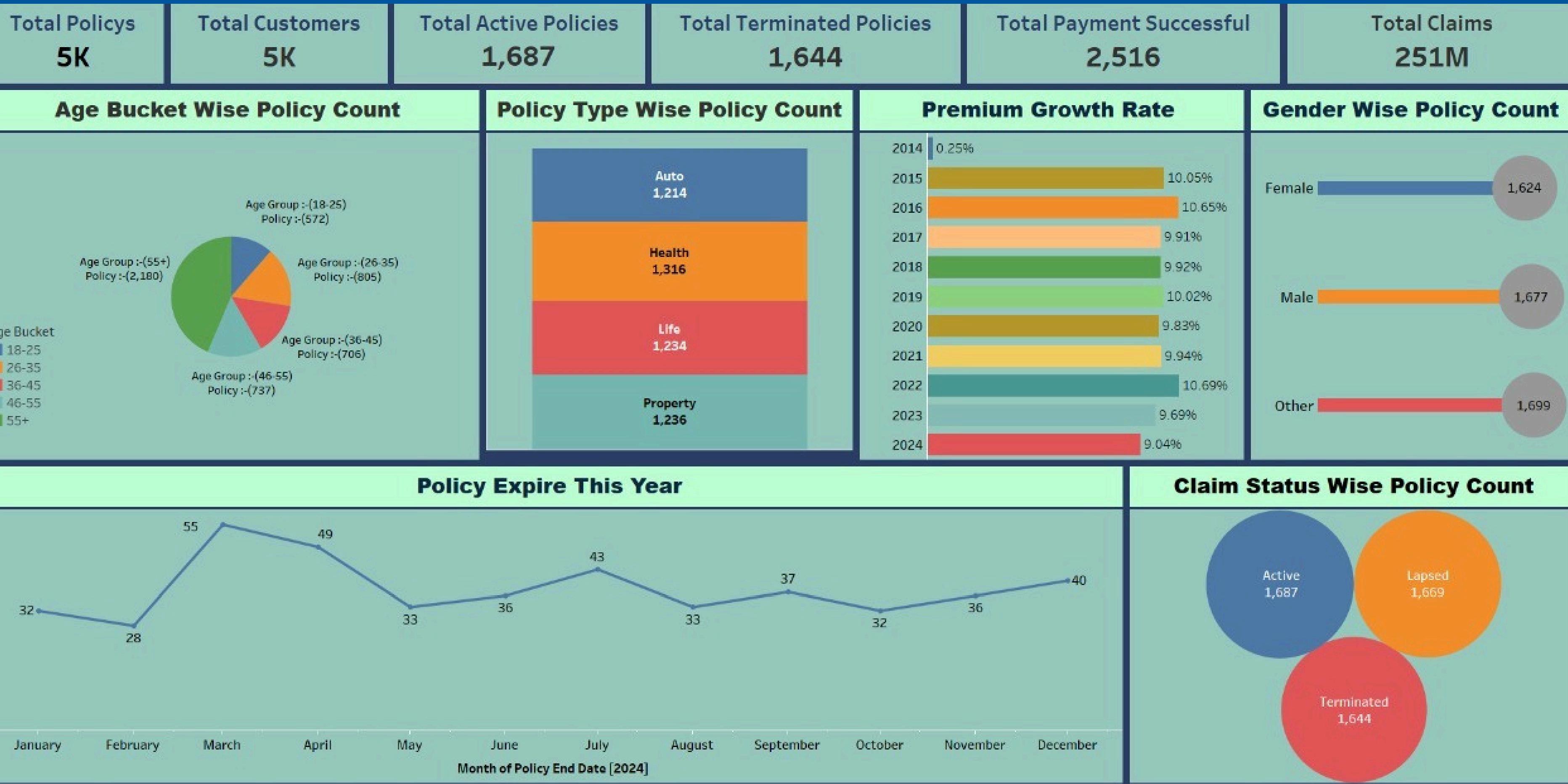


Tableau - Branch Insurance Dashboard



MySQL - Policy Analysis

1

```
create database insurance_analytics_project;
use insurance_analytics_project;
```

KPI-1-----

```
select count(policy_id) from additional_fields;
```

KPI-2-----

```
select count(customer_id) from customer_information;
```

KPI-3-----

```
SELECT SUM(Claim_Amount) /(1000000) AS Claim_Amount_in_Millions
FROM claims;
```

----- KPI-4-----

```
ALTER TABLE customer_information
ADD COLUMN age_bucket VARCHAR(50);
```

```
UPDATE customer_information
```

```
) SET age_bucket = CASE
WHEN age < 18 THEN 'Under 18'
WHEN age BETWEEN 18 AND 25 THEN '18-25'
WHEN age BETWEEN 26 AND 35 THEN '26-35'
WHEN age BETWEEN 36 AND 50 THEN '36-50'
WHEN age BETWEEN 51 AND 65 THEN '51-65'
ELSE 'Above 65'
END;
```

```
SELECT age_bucket, COUNT(*) AS policy_count
FROM customer_information
GROUP BY age_bucket;
```

----- KPI-5-----

```
SELECT Gender, COUNT(*) AS policy_count
FROM customer_information
GROUP BY Gender;
```

MySQL - Policy Analysis

3

4

```
----- KPI-6-----  
SELECT policy_type, COUNT(*) AS policy_count  
FROM policy_details  
GROUP BY policy_type;
```

```
----- KPI-7-----  
SELECT YEAR(Policy_End_Date) AS policy_end_year,  
COUNT(policy_id) AS policy_count FROM policy_details  
GROUP BY YEAR(Policy_End_Date);
```



```
----- KPI-7-----  
SELECT YEAR(Policy_End_Date) AS policy_end_year,  
COUNT(policy_id) AS policy_count FROM policy_details  
GROUP BY YEAR(Policy_End_Date);
```

```
----- KPI-8-----  
select Status,COUNT(policy_id) AS policy_count  
FROM policy_details group by status;
```

```
----- KPI-9-----  
SELECT  
YEAR(policy_start_date) AS policy_year,  
ROUND((SUM(Premium_Amount) / (SELECT SUM(Premium_Amount)  
FROM policy_details)) * 100, 2) AS growth_rate  
FROM  
policy_details  
GROUP BY  
YEAR(policy_start_date);
```

MySQL - Branch Insurance Analysis

1

```
-- SQL (BRANCH INSURANCE PROJECT)

SELECT opportunity_name, revenue_amount
FROM opportunity
ORDER BY revenue_amount DESC
LIMIT 5;

SELECT opportunity_name, revenue_amount
FROM opportunity
ORDER BY revenue_amount DESC
LIMIT 4;

SELECT product_group, COUNT(opportunity_name) AS opportunity_count
FROM opportunity
GROUP BY product_group;

SELECT Stage, sum(revenue_amount)
FROM opportunity
Group by stage;
```

2

```
select count(stage) as Total_Opportunity
from opportunity;

select count(stage) as Total_Open_Opportunity
from opportunity
where stage not in ('negotiate');

select meeting_date as year, count(meeting_date) as MeetingCount
from meeting
group by meeting_date
order by meeting_date;

SELECT Account_Executive, COUNT(meeting_date) AS meeting_count
FROM meeting
GROUP BY account_executive;
```

MySQL - Branch Insurance Analysis

3

```
SELECT account_executive, COUNT(invoice_date) AS invoice_count  
FROM invoice  
GROUP BY account_executive;
```

```
SELECT (SELECT SUM(Cross_sell_bugdet) FROM individual_budgets)  
AS target_cross_sell,  
(SELECT SUM(Amount)  
FROM invoice  
WHERE income_class='cross sell') AS invoice_cross_sell;
```

4

```
SELECT SUM(Amount) AS Cross_Sell_Achievement  
FROM (SELECT Amount  
      FROM fees  
      WHERE income_class='cross sell'  
      UNION ALL  
      SELECT Amount  
      FROM brokerage  
      WHERE income_class='cross sell'  
)as combined;
```

```
SELECT (SELECT SUM(new_budget) FROM individual_budgets)  
AS target_new,  
(SELECT SUM(COALESCE(amount, 0))  
FROM invoice  
WHERE income_class='new') AS invoice_new;
```

MySQL - Branch Insurance Analysis

5

```
SELECT round(SUM(Amount),2) AS New_achievement  
FROM (SELECT Amount FROM fees  
      WHERE income_class='new'  
      UNION ALL  
      SELECT Amount  
      FROM brokerage  
      WHERE income_class='new'  
)as combined;  
  
SELECT (SELECT SUM(renewal_budget)  
       FROM individual_budgets) AS target_renewal,  
       (SELECT SUM(COALESCE(amount, 0))  
        FROM invoice  
       WHERE income_class='renewal') AS invoice_renewal;
```

6

```
SELECT round(SUM(Amount),2) AS Renewal_achievement  
FROM (SELECT Amount  
      FROM fees  
      WHERE income_class='renewal'  
      UNION ALL  
      SELECT Amount  
      FROM brokerage  
      WHERE income_class='renewal'  
)as combined;
```

MySQL - Branch Insurance Analysis

7

```
select round((13041253.3/20083111*100),2) as Cross_sell_Placed_Achievement;  
select round((2853842/20083111*100),2) as Cross_sell_Invoice_Achievement;
```

```
select round((3531629.31/19673793*100),2) as New_Placed_Achievement;  
select round((569815/19673793*100),2) as New_Invoice_Achievement;
```

```
select round((18507270.64/12319455*100),2) as Renewal_Placed_Achievement;  
select round((8244310/12319455*100),2) as Renewal_Invoice_Achievement;
```

Insights



Branch Performance

Some branches excel in renewals, while others struggle with new acquisitions.



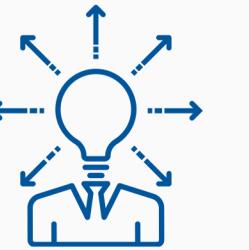
Customer & Policy Trends

Policies are concentrated in specific age groups; renewal rates vary.



Financial Health

Premium growth is steady but affected by claims and payment delays.



Sales & Conversion

More meetings lead to higher conversions; sales pipeline has untapped potential.



Recommendations



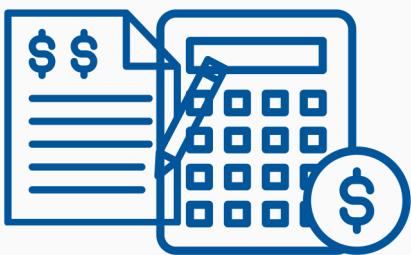
Boost Branch Sales

Targeted training & performance-based incentives.



Increase Renewals

Personalized reminders & loyalty programs.



Optimize Claims & Payments

Automate claims & improve payment follow-ups.



Enhance Conversions

Focus on high-potential leads & client engagement.

Final Takeaways



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- Data-driven decisions improve efficiency & profitability.
 - Dashboards provide real-time business insights.
 - Optimizing claims, payments & renewals ensures steady growth.
 - Continuous KPI tracking drives long-term success.
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Thank you

