DATA WAREHOUSE

Course Work

INTRODUCTION

This project develops a Data Warehouse for the Sri Lankan Parliament using Oracle SQL, Talend ETL, and Power BI. It enhances transparency and decision-making by analyzing legislative data, including member details, voting patterns, salaries, and car allocations.

SCHEMA DESIGN

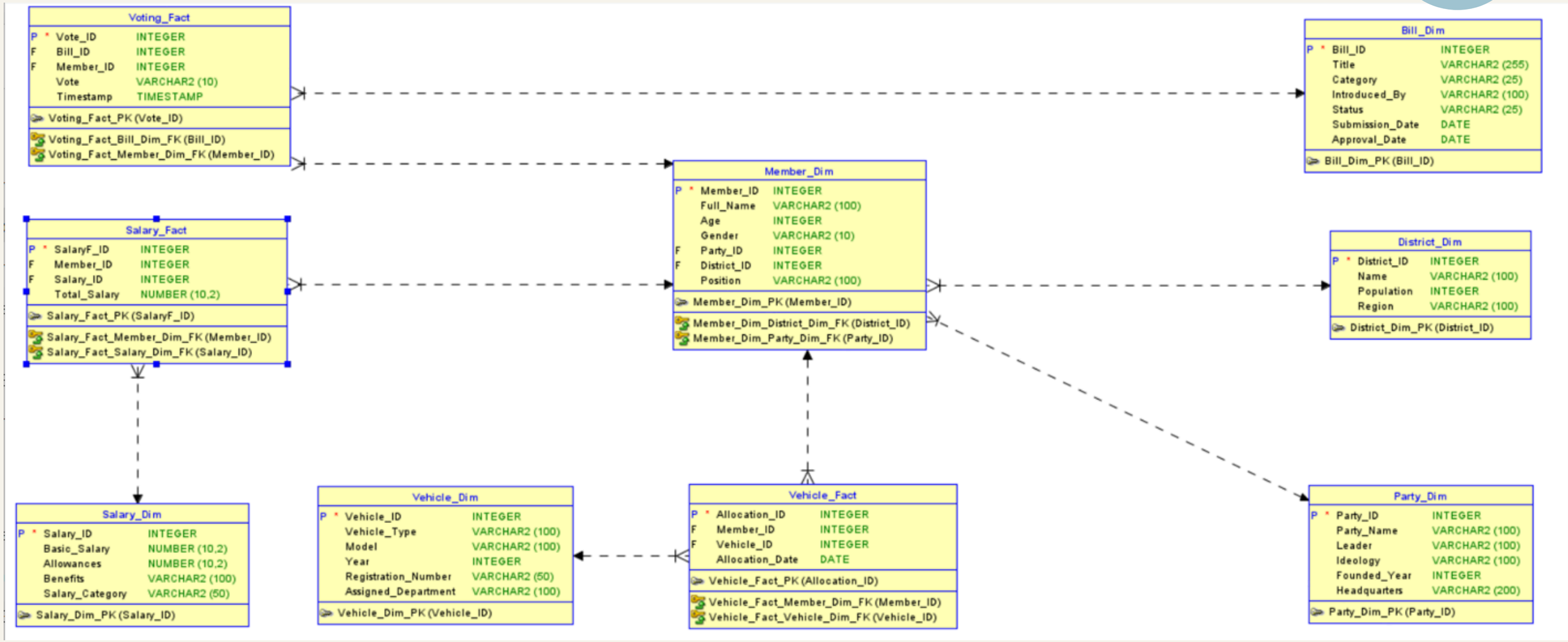
Dimension Tables:

- Party_Dim (Party_ID, Party_Name, Leader, Ideology, Founded_Year, Headquarters)
- Member_Dim (Member_ID, Name, Age, Gender, Party_ID (FK), Constituency_ID, Position)
- Bill_Dim (Bill_ID, Title, Category, Introduced_BY, Status, Submission_Date, Approval_
- Constituency_Dim (Constituency_ID, Name, Population, Region)
- Vehical_Dim (Vehical_ID, Vehical_Type, Model, Year, Registration_NO, Assigned_Department)
- Salary_Dim (Salary_ID, Basic_Salary, Allowances, Benefits, Salary_Category)

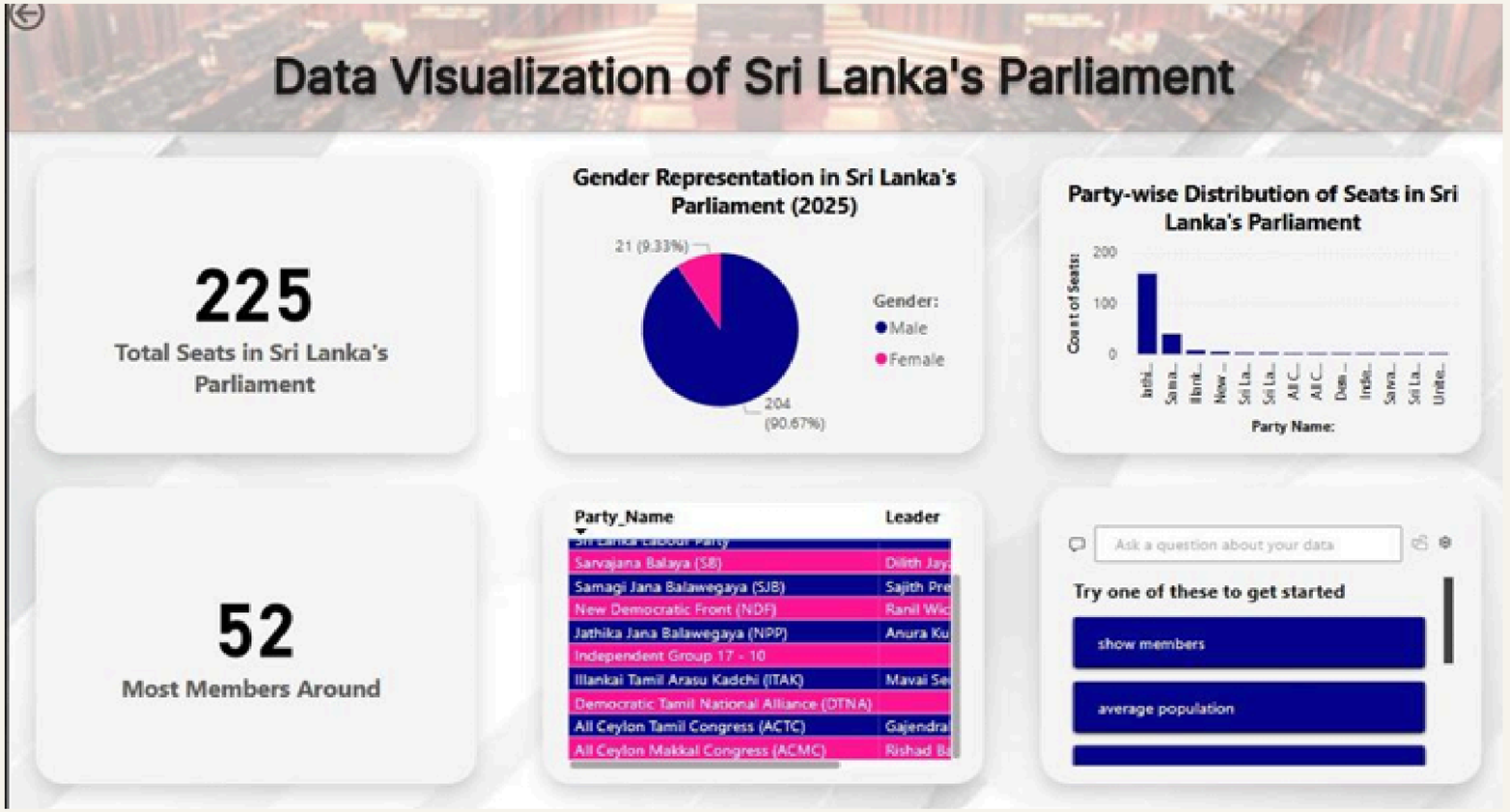
Fact Tables :

- Vehical_Fact (Allocation_ID, Member_ID (FK), Vehical_ID (FK), AllocationDate)
- Salary_Fact (Salary_ID, Member_ID (FK), Total_Salary, EffectiveDate)
- Voting_Fact (Vote_ID, Bill_ID (FK), Member_ID (FK), Vote, Timestamp)

Galaxy Schema Design:

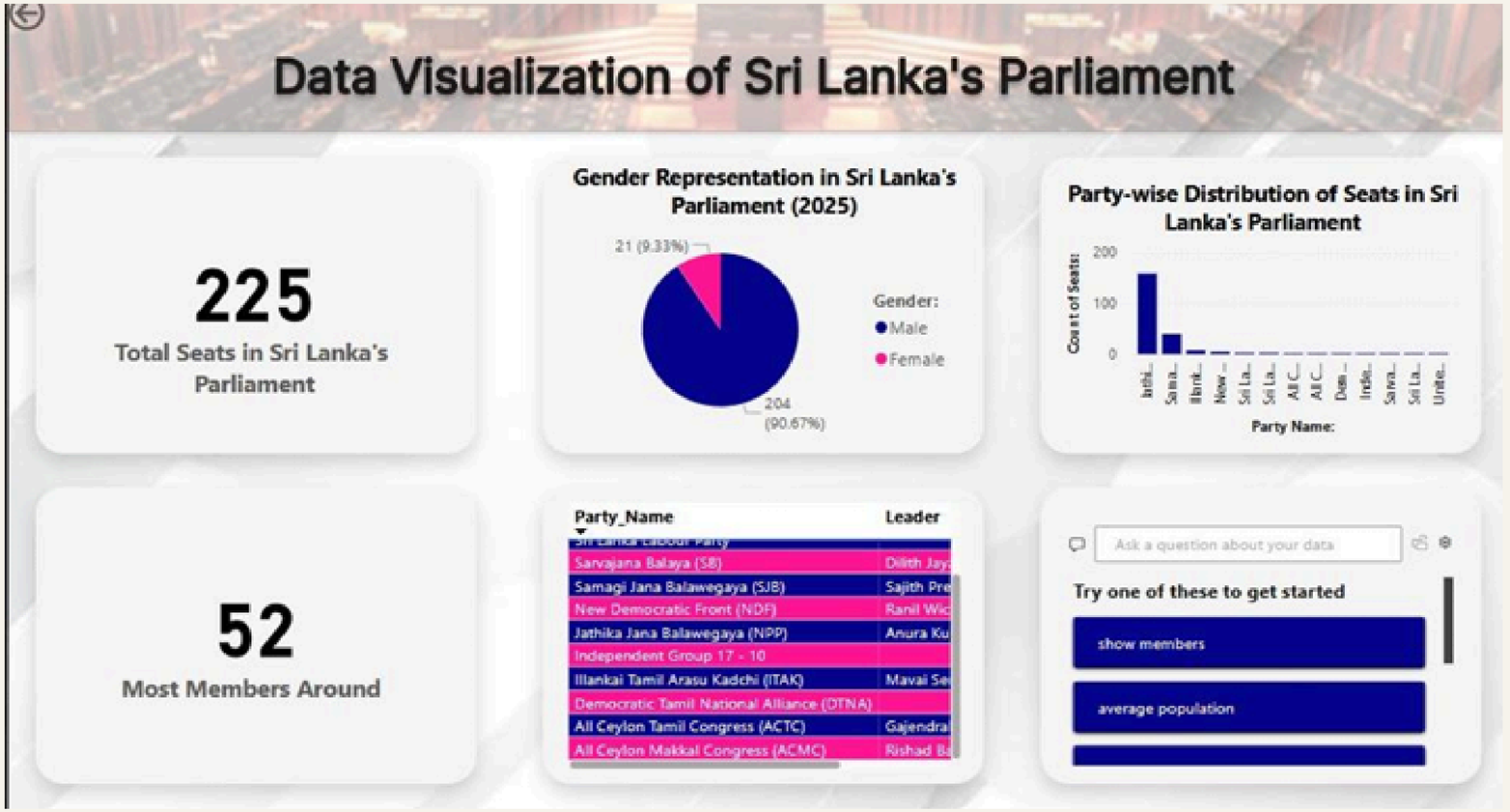


ETL Process using Talend

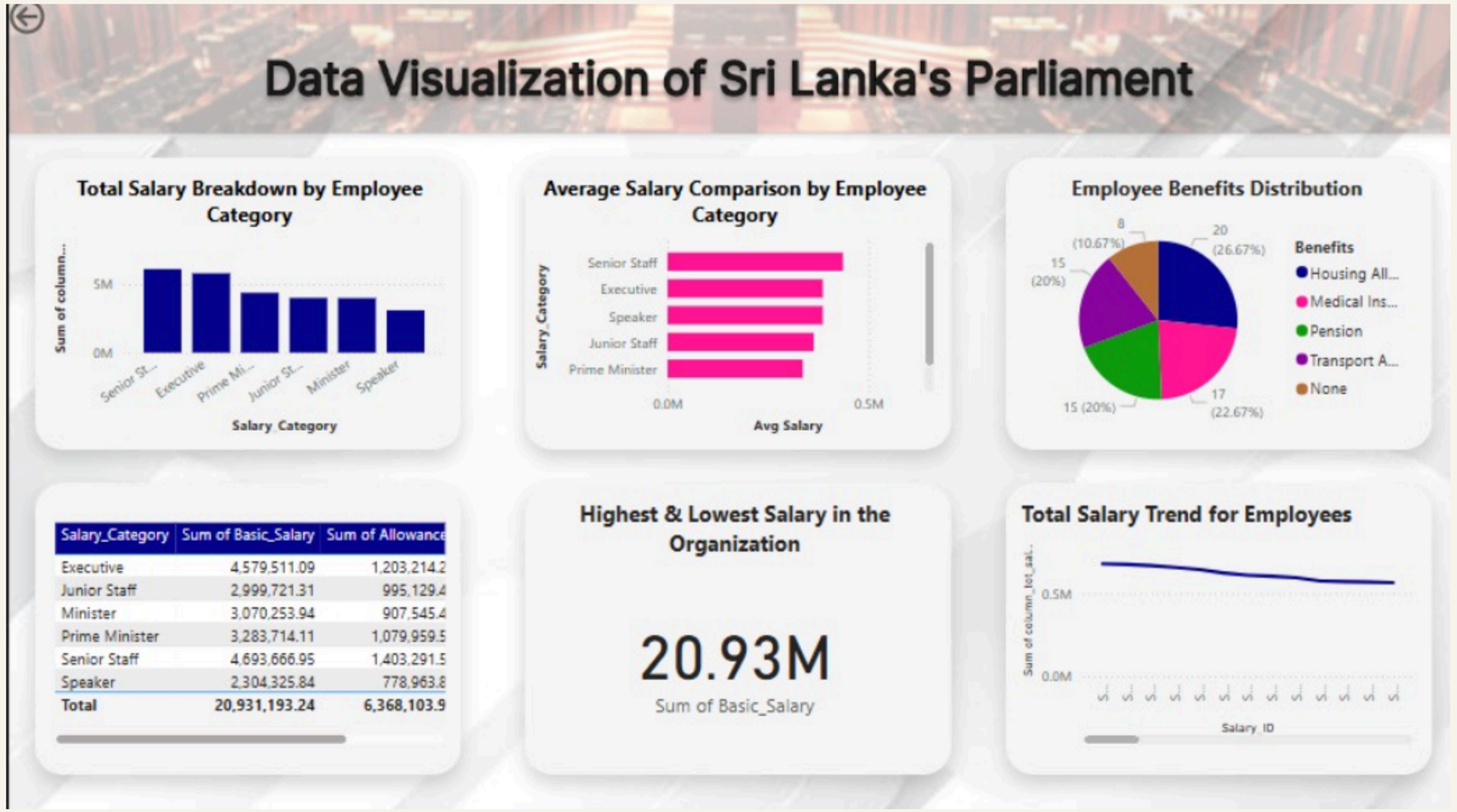


Data Visualization in Power BI

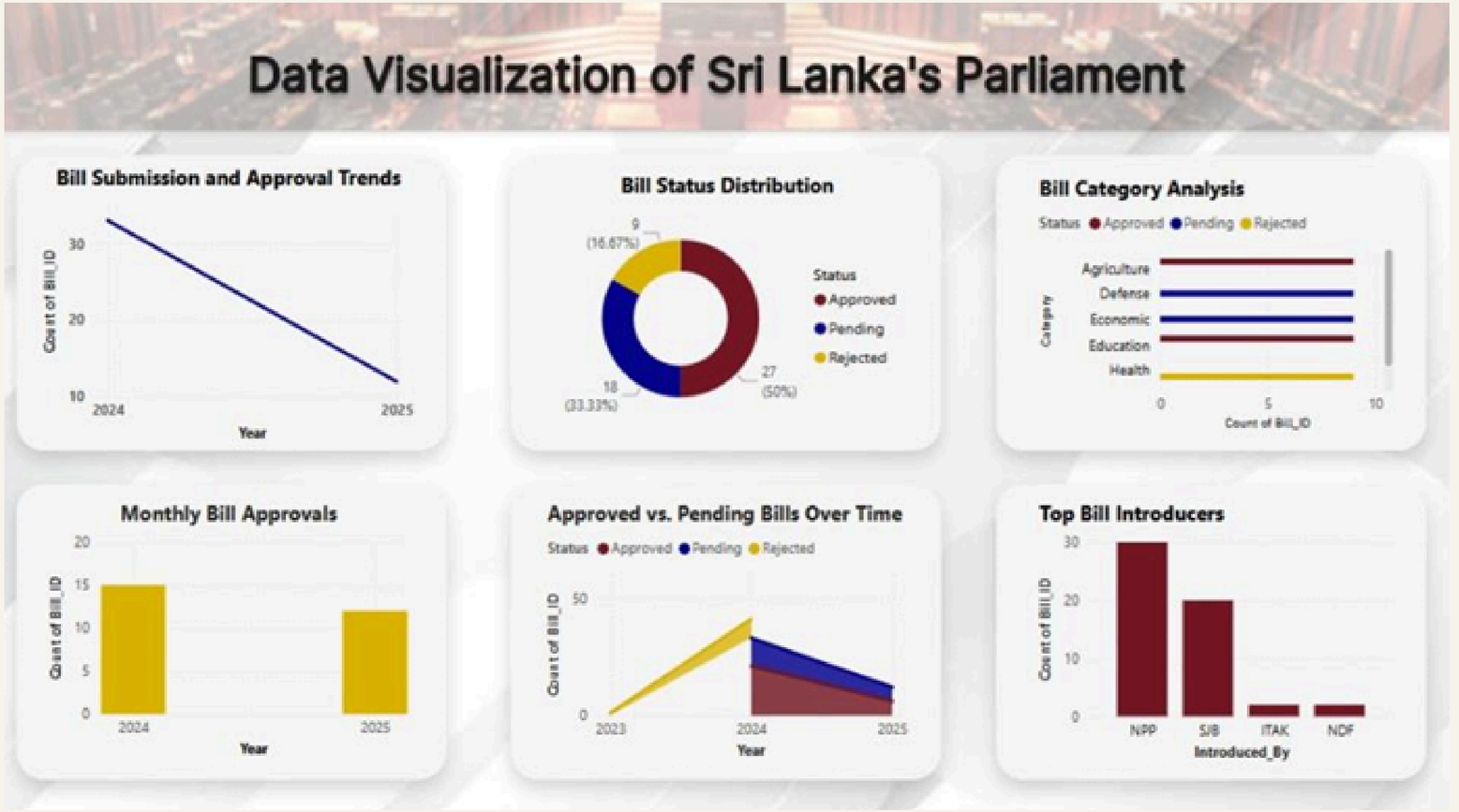
Voting Analytics: Member-wise and party-wise voting trends.



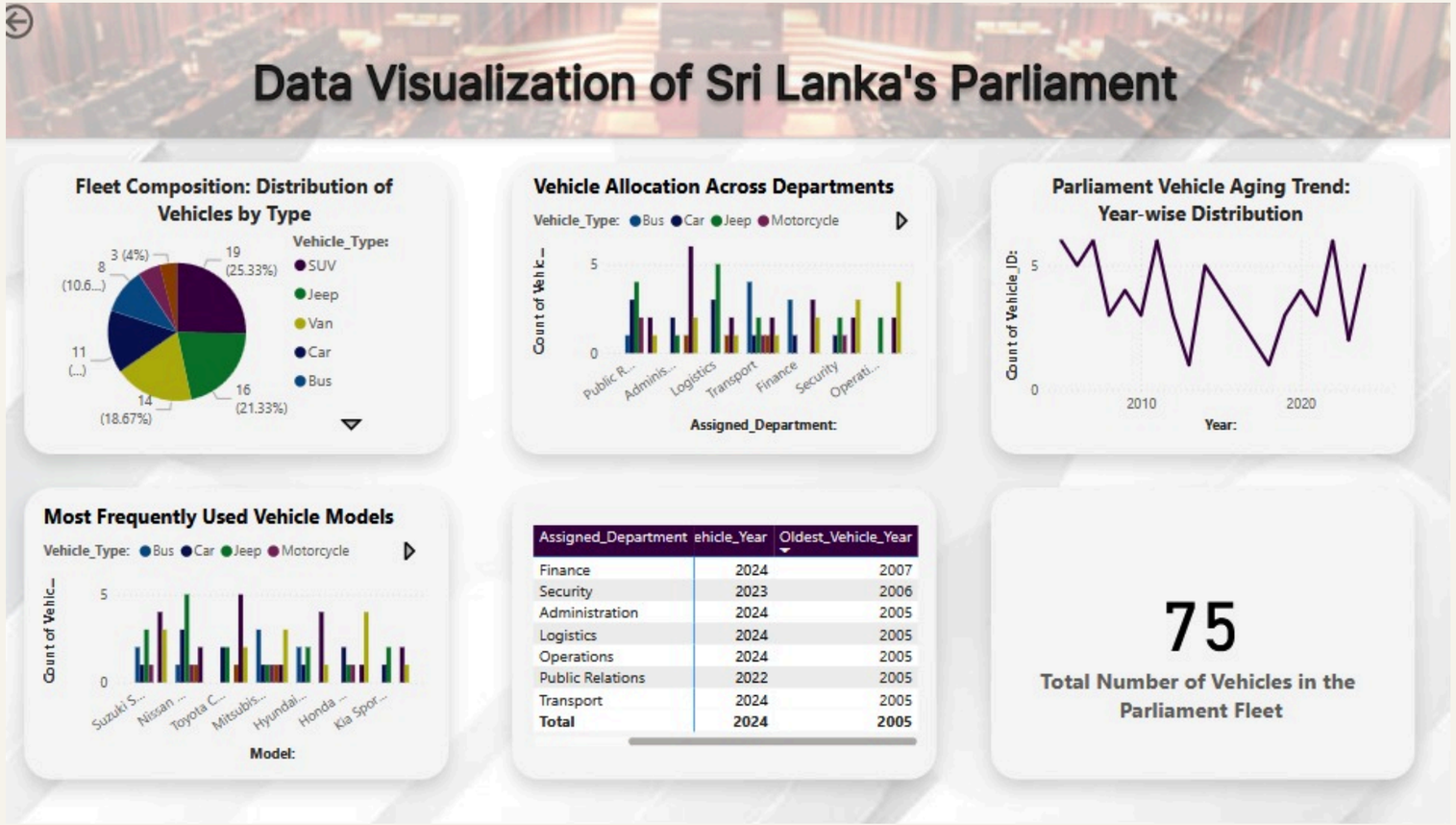
Salary Distribution: Comparative analysis of salaries and allowances.



Bill Approval Trends: Insights into the passing rate of different bill categories.



Vehicle Allocation: Analysis of government resource allocations by department.



THANK YOU