ELECTVIZ
ELECTION DATA VISUALIZATION FOR MEDIA

Final Milestone report

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PROBLEM STATEMENT:

India’s General Election data is vast, scattered, and unstructured, making it difficult for media professionals to analyze and compare results quickly. Existing static representations limit interactive exploration of trends. The Infosys ElectViz project addresses this by creating an interactive Power BI dashboard that unifies historical election data, enabling visual, comparative, and data-driven insights on party performance, vote share, and voter turnout.

PROPOSED SYSTEM

ElectViz is an interactive platform for visualizing election data, designed to support media analysis and reporting. Its architecture consists of four modules:

- **Data Collection**: Gathers data from official results and historical sources.
- **Preprocessing**: Cleans and models data for consistency and accuracy.
- **Visualization:** Builds interactive dashboards with maps, charts, and tables.
- **Insights Generation**: Provides analytics via dynamic filters, drill-throughs, and decomposition trees.
- **Key Features:** Dynamic filtering, party performance comparison,hierarchical analysis, and interactive visuals.

IMPLEMENTATION

1. Data Collection:
Collected and analyzed three key datasets — Lok Sabha results, Assets & Liabilities of candidates, and Party details — to capture political,financial, and constituency-level information.

2. Data Cleaning & Preprocessing
Cleaned and standardized data in Power Query Editor by removing duplicates, fixing inconsistent formats, and merging multiple CSVs.Created calculated columns like vote share and winning margin to enhance analysis accuracy.

3. Data Modeling :
Built relationships between Party, Candidate, and Constituency tables Designed hierarchies (State → Constituency → Candidate) created DAX measures for KPIs such as total seats won, party performance, and candidate wealth.

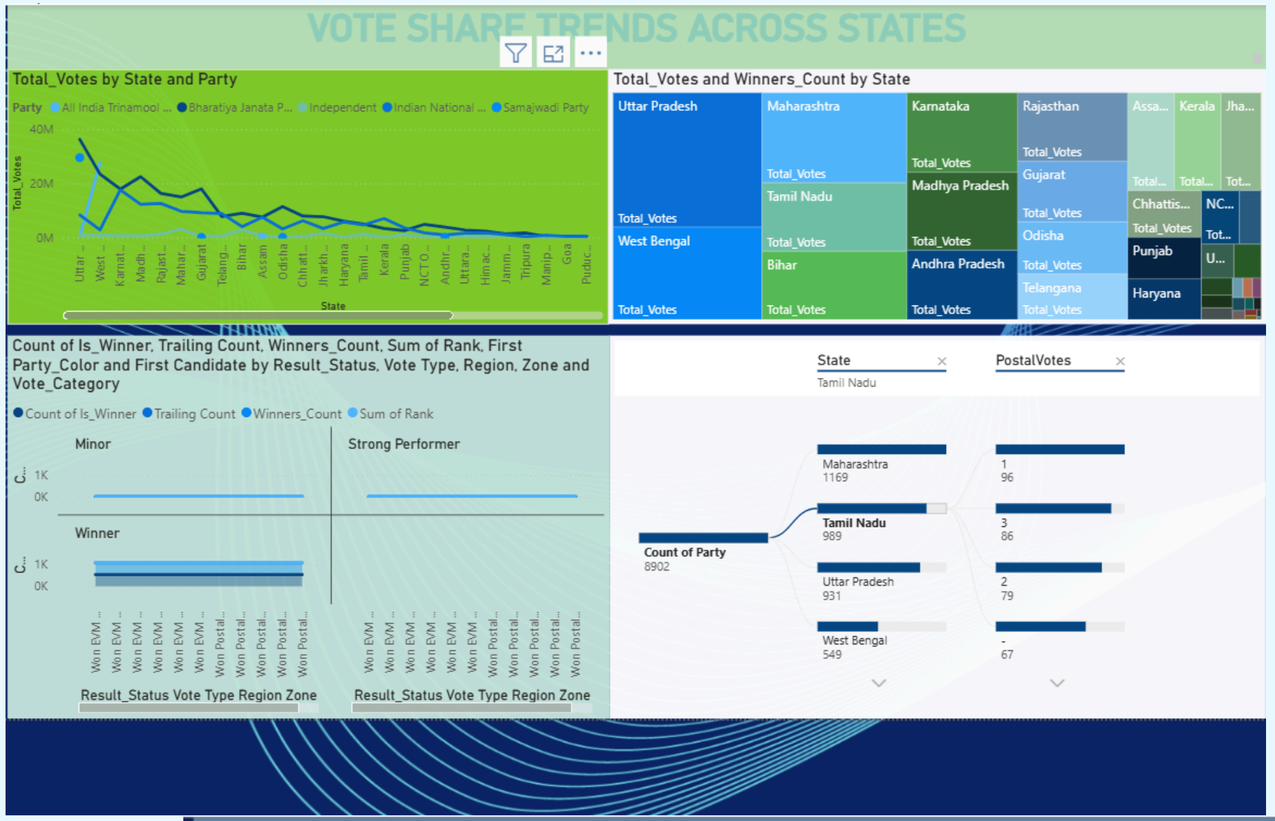
4. Visualization
Design Developed an interactive, multi-page dashboard. Used slicers, bookmarks, and drill-throughs for dynamic exploration.

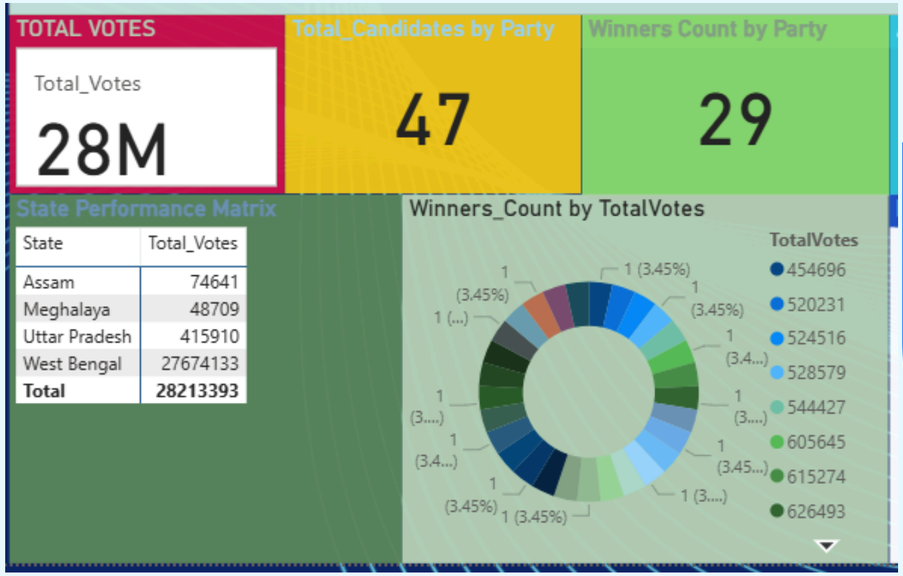
5. Insights
The dashboard revealed correlations between candidate wealth and performance, highlighted state-wise winning trends, and provided clear, real-time insights for journalists.
The project was uploaded to GitHub with documentation and visuals.

CHALLENGES FACED

1. **Data Integration & Cleaning**
   The raw election dataset contained inconsistent constituency names, missing values, and formatting differences across states.
2. **Technical Alignment in Power BI**
   Some members initially struggled with DAX functions and relationship modeling.
3. **Communication & Time Management**
   Coordinating virtually while managing academic deadlines led to timing overlaps.

ANALYSIS


VOTE SHARE TRENDS ACROSS STATES
Total_Votes by State and Party
Party
All India Trinamool ...
Bharatiya Janata P...
Independent
Indian National ...
Samajwadi Party
40M
20M
0M
Total_Votes
State
Total_Votes and Winners_Count by State
Uttar Pradesh
Total_Votes
Maharashtra
Total_Votes
Karnataka
Total_Votes
Rajasthan
Total_Votes
Kerala
Total_Votes
West Bengal
Total_Votes
Tamil Nadu
Total_Votes
Madhya Pradesh
Total_Votes
Gujarat
Total_Votes
Bihar
Total_Votes
Andhra Pradesh
Total_Votes
Odisha
Total_Votes
Telangana
Total_Votes
Punjab
Haryana
Count of Is_Winner, Trailing Count, Winners_Count, Sum of Rank, First Party_Color and First Candidate by Result_Status, Vote Type, Region, Zone and Vote_Category
Count of Is_Winner
Trailing Count
Winners_Count
Sum of Rank
Minor
Strong Performer
Winner
1K
0K
Result_Status Vote Type Region Zone
State
Tamil Nadu
PostalVotes
Count of Party
8902
Maharashtra
1169
Tamil Nadu
989
Uttar Pradesh
931
West Bengal
549
1
96
3
86
2
79
-
67


TOTAL VOTES
Total_Votes
28M
Total_Candidates by Party
47
Winners Count by Party
29
State Performance Matrix
State
Total_Votes
Assam
74641
Meghalaya
48709
Uttar Pradesh
415910
West Bengal
27674133
Total
28213393
Winners_Count by TotalVotes
TotalVotes
454696
520231
524516
528579
544427
605645
615274
626493


PARTY PERFORMANCE ANALYSIS
Party
All India Trinamool Congress
Bahujan Samaj Party
Bharatheeya Jawan Kisan Party
Bharatiya Janata Party
Communist Party of India (Marxist)
Independent
Indian National Congress
Peoples Party of India (Democratic)
Samajwadi Party

THANK YOU