MILESTONE - 3

DEVELOPMENT PHASE – PART 2 + Testing

DASHBOARD VISUALIZATION

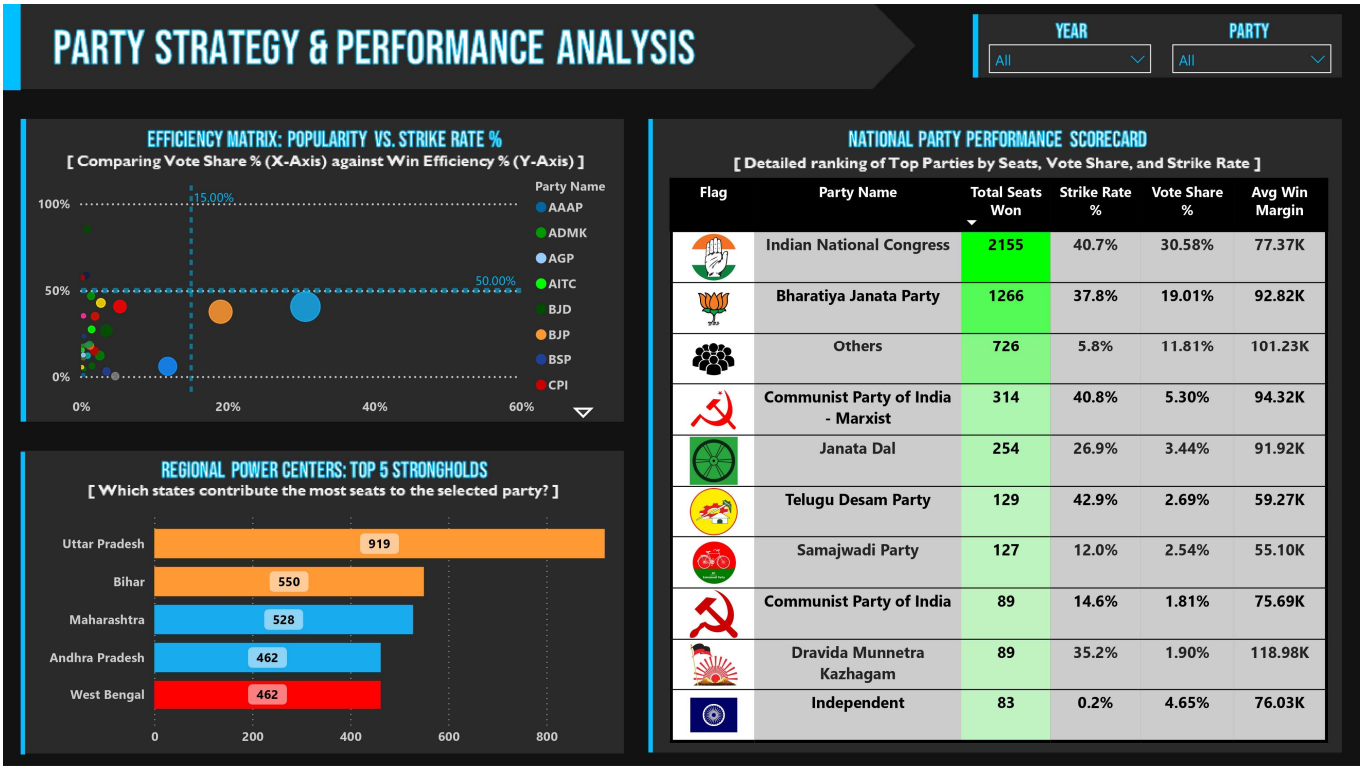
PAGE 3: PARTY STRATEGY & PERFORMANCE ANALYSIS

Theme: "The ROI of Politics"

Strategic Purpose: To move beyond simple seat counts and evaluate the "efficiency" of political campaigns, helping analysts distinguish between mass popularity and actual electoral convertibility.

Visual Component	Type	Configuration & Logic	Strategic Rationale
Global Controllers	Slicer	**Fields:** `Dim_Year`, `Party_Master[Party_Name]` **Function:** Allows users to isolate a specific party's performance across a single election cycle or historical range.	Enables deep-dive analysis into specific political entities, filtering out noise from hundreds of smaller parties.
Efficiency Matrix	Scatter Plot	**X-Axis:** Vote Share % **Y-Axis:** Strike Rate % **Values:** Party Name **Quadrant Logic:** Divides parties into "Efficient Winners" (High Strike Rate) vs. "Popular Losers."	Visualizes the "Conversion Rate" of votes to seats. It exposes parties that may have high popularity (Vote Share) but fail to win seats due to poor vote concentration.
Performance Scorecard	Table	**Columns:** Flag, Party Name, Total Seats Won, Strike Rate %,	Provides a "Hard Data" lookup for journalists who need precise numbers (e.g.,

Visual Component	Type	Configuration & Logic	Strategic Rationale
		Vote Share %, Avg Win Margin. **Sorting:** Descending by Seats Won.	exact Strike Rate percentages) rather than just visual trends.
Regional Power Centers	Bar Chart	**Axis:** State Name **Values:** Total Seats Won **Filter:** Top 5 States by Seat Contribution.	Identifies the geographic "Base" of a party. It answers whether a party is a true national force or heavily reliant on a few specific "Stronghold" states.



DASHBOARD VISUALIZATION

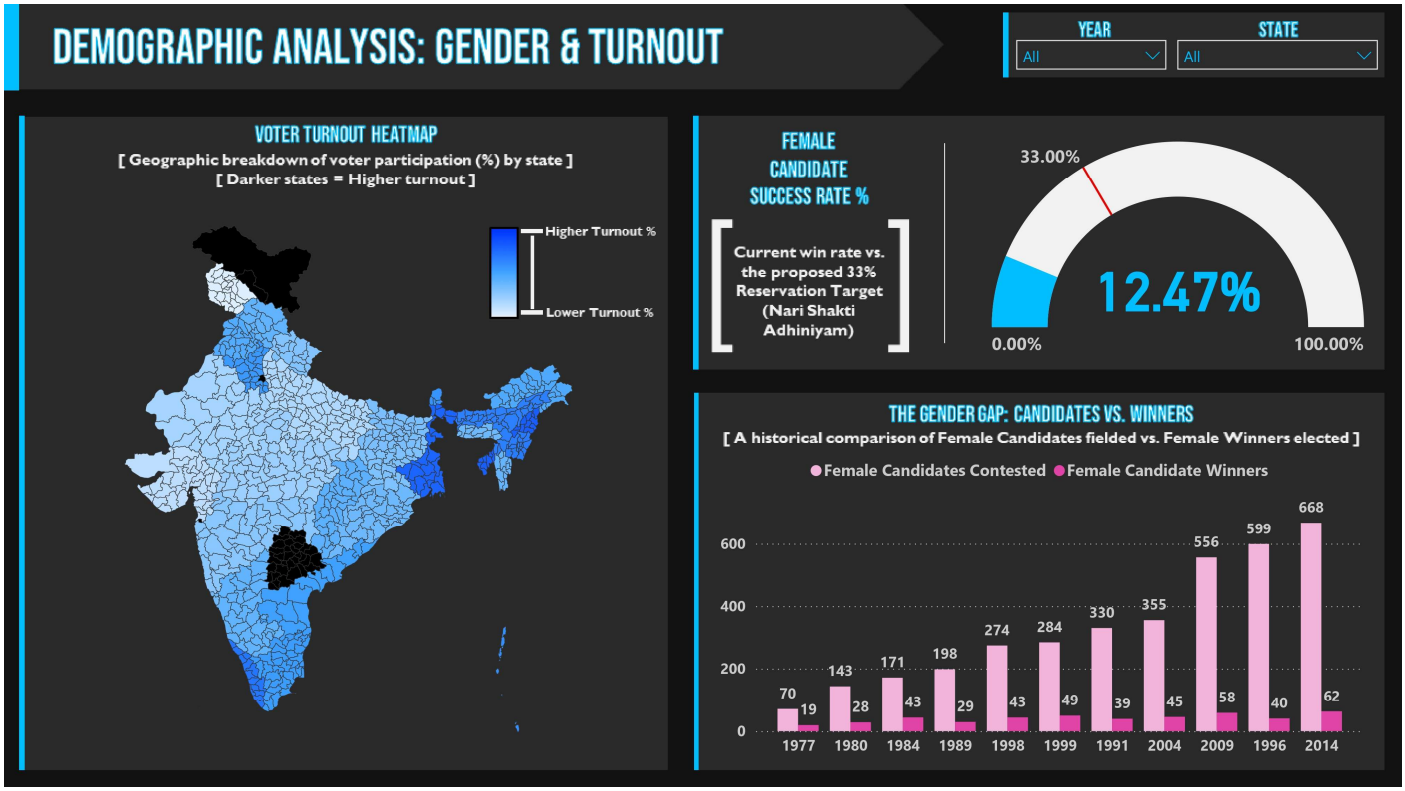
PAGE 4: DEMOGRAPHIC ANALYSIS: GENDER & TURNOUT

Theme: "The Social Health Check"

Strategic Purpose: To analyze the human element of the election, specifically correlating voter participation with outcomes and measuring the progress of gender inclusivity in Indian politics.

Visual Component	Type	Configuration & Logic	Strategic Rationale
Context Controllers	Slicer	**Fields:** `Dim_Year`, `Dim_State`	Facilitates comparison between different states or time periods to track demographic shifts.
Turnout Heatmap	Shape Map	**Loc:** `Dim_State` **Saturation:** `[Nat Avg Turnout %]` **Gradient:** Light Blue (Low) to Dark Blue (High).	Instantly highlights regions with high civic engagement. Darker states indicate a more politically active electorate, often correlating with anti-incumbency waves.
Female Success Rate	Gauge Chart	**Value:** `[Female Success Rate %]` **Target:** 33% (labeled "Nari Shakti Adhiniyam").	Sets a clear "Policy Benchmark." It visually demonstrates the gap between the current reality of female representation and the proposed legislative target of 33%.
The Gender Gap	Clustered Bar	**X-Axis:** Year	Reveals the "Drop-off Effect." It proves that while more women are contesting elections (Pink bars rising), the number of actual

Visual Component	Type	Configuration & Logic	Strategic Rationale
		Y-Axis: Count **Legend:** Female Candidates Contested vs. Female Winners.	winners is not growing at the same linear pace.



DASHBOARD VISUALIZATION

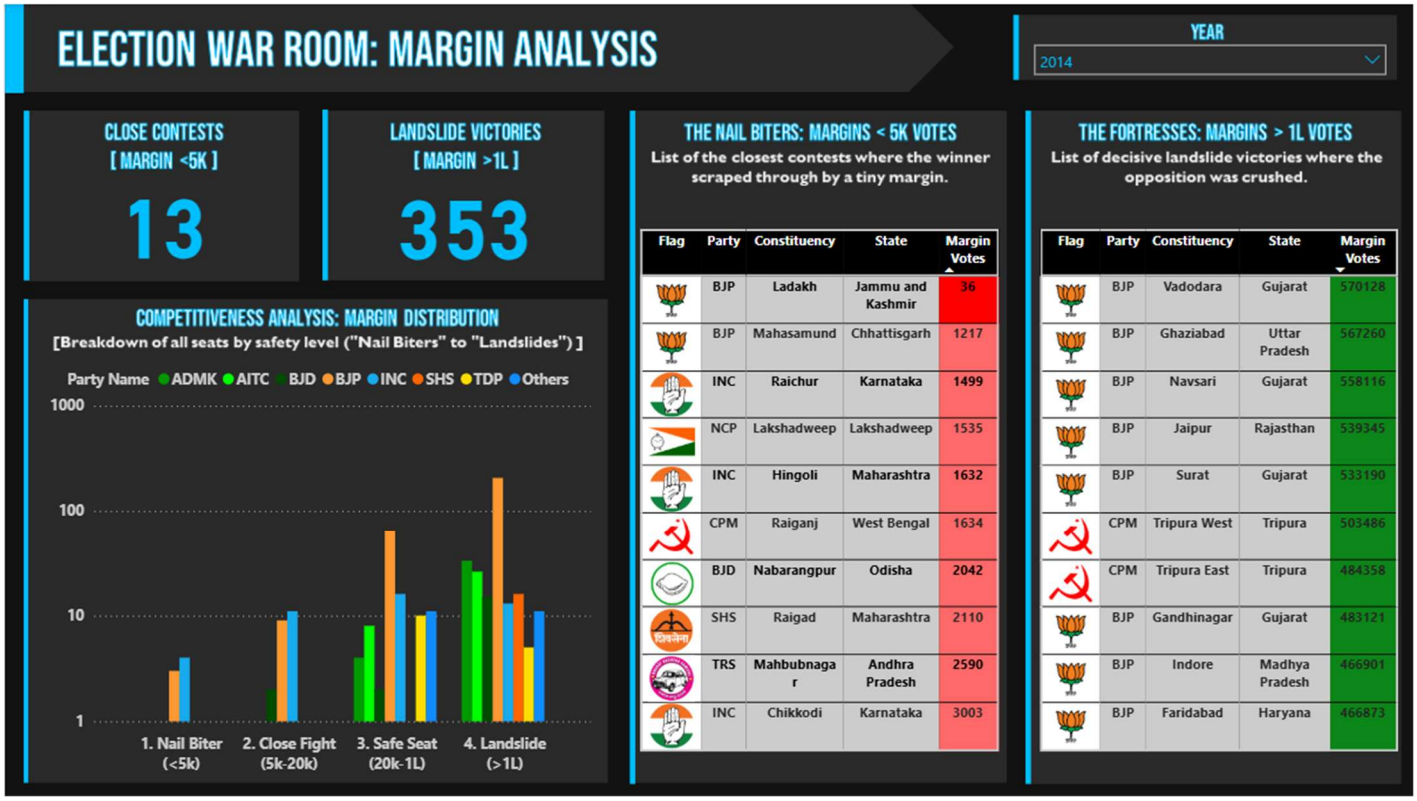
PAGE 5: ELECTION WAR ROOM: MARGIN ANALYSIS

Theme: "Critical Alerts & Volatility"

Strategic Purpose: A high-stakes command center designed for live reporting. It isolates "At-Risk" seats to identify where the election hung by a thread versus where it was a one-sided wave.

Visual Component	Type	Configuration & Logic	Strategic Rationale
Volatility Alerts	KPI Cards	**Metrics:** `[Close Contests (<5k)]` vs `[Landslide Victories (>1L)]`.	**The Headline Stat:** In a live newsroom, analysts first need to know the scale of volatility. These big numbers instantly segregate "Safe" seats from "Nail Biters."
Competitiveness Analysis	Clustered Bar	**Axis:** Safety Category (Nail Biter, Close Fight, Safe Seat, Landslide) **Values:** Seat Count.	Profiles the "Intensity" of the mandate. It visually answers whether the election was a tight race or a decisive landslide.
The Nail Biters	Table	**Filter:** Margin < 5,000 votes. **Formatting:** Red background for Margin Votes column.	**The Watchlist:** Lists specific constituencies that are vulnerable to flipping. Essential for identifying swing seats.
The Fortresses	Table	**Filter:** Margin > 100,000 votes.	Identifies "Unshakable" strongholds where the winner dominated the opposition completely.

Visual Component	Type	Configuration & Logic	Strategic Rationale
		Formatting: Green background for Margin Votes column.	



TESTING & VALIDATION STRATEGY

Overview: Given the complexity of the "War Room" logic and "Efficiency" metrics, a rigorous testing phase (Weightage: 12/25) was conducted to ensure system integrity.

A. Data Accuracy & Integrity (The "Zero-Loss" Check)

- **Technique: Aggregate Reconciliation**
- **Method:** We implemented a custom "Integrity Check" flag that calculates the absolute difference between the *Sum of Candidate Votes* and the *Total Valid Votes* reported in the source file.
- **Outcome:** Confirmed that row-level candidate data rolls up exactly to the constituency totals, ensuring zero data loss during the ETL process.

B. Logical & Scenario Testing

- **Technique: Edge-Case Validation**
- **Method:** We manually filtered the dashboard for "Edge Cases"—specifically constituencies with the smallest possible winning margins (double-digit votes).
- **Outcome:** Verified that the conditional formatting logic (Red highlights) correctly triggers at the lower bounds and that the "Nail Biter" category accurately captures these specific anomalies.

C. Interactivity & Context Transition

- **Technique: Cross-Filtering Stress Test**
- **Method:** We selected specific dimension attributes (e.g., a single Party or State) on the Master pages and navigated to the Detail pages.
- **Outcome:** Confirmed that filter contexts propagate correctly across the Galaxy Schema, ensuring that a "Party" selection correctly filters the "State Strongholds" chart without breaking visual relationships.

D. Temporal Logic Validation

- **Technique: Slicer Interaction Testing**
- **Method:** Toggled the "Year" slicer across multiple historical election cycles (e.g., comparing 1984 vs. 2014).
- **Outcome:** Validated that complex time-intelligence measures (like historical trend lines) dynamically recalculate and display the correct subset of data for the selected period.

5. NEXT SPRINT GOALS (MILESTONE 4)

Focus: Deployment, Final Documentation & Submission.

- **Deployment Strategy:**
  - **Submission:** Submit the final `.pbix` file, dataset, and Python source code to the Infosys team via a **GitHub Link**.
- **Comprehensive Documentation:**
  - **Report Compilation:** Consolidate all previous reports (Milestone 1, 2, & 3) into a single master repository.
  - **Final Project Report:** Create a concluding document summarizing the full development lifecycle, technical challenges faced, and the solutions implemented.
- **Final Review & Presentation:**
  - **Performance Tuning:** Optimize DAX queries and visual rendering to ensure the dashboard loads efficiently.
  - **Sign-Off:** Conduct a final presentation rehearsal and prepare for the project Q&A session.
