**Capstone Project Submission**

# Political Insight Analysis

**Instructions:**

1. Please fill in all the required information.
2. Avoid grammatical errors.

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| **GMAIL: saifk21@gmail.com** | | |
| **ROLES:**    1. Importing data  2. Counting the number of rows and columns in the dataset  3. Finding the missing values in the dataset  4. Dropping low percentage of missing values  5. Finding and removing outliers  6. Preprocessing the data  7. Changing the column names  8. Breaking the data column into year, month, day  9. Changing the data type  10. Deducing the relationship between political party participation and years  11. Deducing the relationship between female representation and years  12. Deducing the relationship between reserved seats and success rates  13. Deducing the relationship between independent candidates and success rates  14. Deducing the relationship between party success rates and years  15. Analyzing event frequency by party  16. Analyzing trends over time  17. Analyzing gender representation trends  18. Analyzing reserved seats  19. Analyzing independent candidate performance  20. Analyzing party success rates  21. Comparing national vs. state-based parties  22. Comparing new entrants vs. established parties  23. Analyzing regional performance  24. Analyzing election year patterns  25. Final conclusions | | |
| **Please paste the GitHub Repo link.** | | |
| Git hub Link:- | | |
| **Please write a short summary of your Capstone project and its components. Describe the problem statement, your approaches and your conclusions. (200-400 words)** | | |
| **Summary of Capstone Project:**  This capstone project focuses on analyzing political insights using historical election data. The goal is to understand trends and patterns in political participation, gender representation, success rates in reserved seats, and performance of independent candidates. By examining these aspects, we aim to provide a comprehensive overview of the political landscape and identify significant shifts and patterns over the years.  **Problem Statement:**  The project aims to predict and analyze political trends, focusing on various aspects such as party participation, female representation, success rates in reserved seats, and performance of independent candidates. Understanding these trends is valuable for political analysts, policymakers, and the general public to gain insights into the political landscape and its evolution over time.  **Approaches:**  **1. Data Cleaning and Preprocessing:**   * Importing the dataset and inspecting its structure. * Handling missing values and removing outliers. * Breaking down the date column into year, month, and day components. * Changing data types and ensuring consistency.     **2. Exploratory Data Analysis:**   * Analyzing top 5 political party participation trend * Examining female representation trends. * Analyzing success rates in SC/ST reserved seats. * Investigating the performance of independent candidates. * Performing regional and election year analyses.   **3. Modeling and Analysis:**   * Applying various algorithms to understand party success rates. * Using heatmaps to check correlations between variables. * Dropping highly correlated columns to avoid multicollinearity. * Applying one-hot encoding on categorical variables. * Training models to predict political trends.   **Conclusions:**  The analysis provides valuable insights into the political landscape, highlighting key trends and patterns in political participation, gender representation, reserved seats, and independent candidates' performance. These insights can help in understanding the evolving political dynamics and making informed decisions for future political strategies and policies. | |
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