Vellore Institute of Technology,

Vellore, Tamil Nadu

Project For Smart Bridge Externship

Political Juggernauts: A Quantitative Analysis of Candidates in the 2019 Lok Sabha Elections

<u>Submitted by:</u>

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The Problem Statement Explained

A quantitative analysis of candidates in the 2019 Lok Sabha elections involved analyzing various numerical aspects related to the candidates. Factors such as the number of candidates, gender distribution, age distribution, educational background, criminal records, party affiliation, and electoral results were examined.

The total number of candidates provided insights into the level of competition and the choices available to voters. The gender distribution analysis shed light on women's representation in politics, while the age distribution analysis revealed generational patterns in participation. The educational background analysis helped understand the diversity in qualifications among candidates.

Examining the presence of candidates with criminal records highlighted the issue of criminalization in politics. Analyzing party affiliation provided insights into the influence of different political parties, while the electoral results analysis evaluated the performance of parties and candidates.

This quantitative analysis offered valuable information for various stakeholders. Political consultants, market researchers, media outlets, policy advocacy organizations, and election forecasters could make data-driven decisions, develop targeted strategies, understand voter behavior, and anticipate election outcomes based on the findings.

Project Drive Link

https://drive.google.com/drive/folders/1DQl-w9CAcknomqGBjHib4g-G57R2Z_RM?usp=drive_link

Requirements

Data collection:

The data for the quantitative analysis can be collected from the Kaggle dataset titled "Indian Candidates for General Election - EDA" by Tanay Patare. This dataset provides information on Indian candidates who contested the general elections, including their demographic details, educational qualifications, criminal records, party affiliations, and electoral outcomes. It is important to ensure that the dataset is downloaded and stored for further analysis. Status, Job roles, and rating

Data cleaning and preparation:

This step involves removing any duplicate or irrelevant entries, handling missing values, standardizing variables, and formatting the data in a suitable structure for analysis. Additionally, data validation and verification should be performed to ensure the accuracy and consistency of the dataset.

Data analysis:

Once the data is cleaned and prepared, various quantitative analysis techniques can be applied. This may include descriptive statistics to summarize the data, correlation analysis to identify relationships between variables, inferential statistics to test hypotheses, and data visualization techniques to present the findings effectively. The analysis can involve examining candidate demographics, educational backgrounds, party affiliations, criminal records, and electoral outcomes to derive meaningful insights.

Report creation:

After conducting the data analysis, a report can be created summarizing the key findings and insights from the quantitative analysis. The report should include a clear explanation of the methodology used, the main results obtained, and the implications of the findings. Visualizations such as charts, graphs, and tables can be included to support the findings.

Social Or Business Impact

Social Impact:

A quantitative analysis of candidates in the 2019 Lok Sabha elections had significant social impact. It promoted transparency, accountability, and informed decision-making among voters. It highlighted gender disparities, encouraging discussions on women's representation and empowerment. The analysis also shed light on youth engagement in politics and prompted discussions on political reforms. It provided insights into voting patterns, party influence, and public sentiment, contributing to electoral reform discussions. Furthermore, it supported academic research and policy development, leading to evidence-based recommendations for strengthening democracy and promoting inclusive representation.

Business Model/Impact:

A quantitative analysis of candidates in the 2019 Lok Sabha elections had notable business impacts. Political consulting firms gained valuable insights to provide effective strategies and campaign advice. Market research firms could understand voter behavior and tailor their marketing strategies. Media and advertising agencies could offer targeted coverage and advertising campaigns. Policy advocacy organizations identified potential allies and opponents. Election forecasters and investors made informed decisions based on the analysis. Data analytics and technology companies developed innovative tools for real-time updates and predictive modeling. Overall, the analysis created business opportunities in political consulting, market research, media coverage, policy advocacy, forecasting, and technology solutions.

Data Collection & Extraction from Database

This Dataset contains information of Indian Candidates for General Election 2019

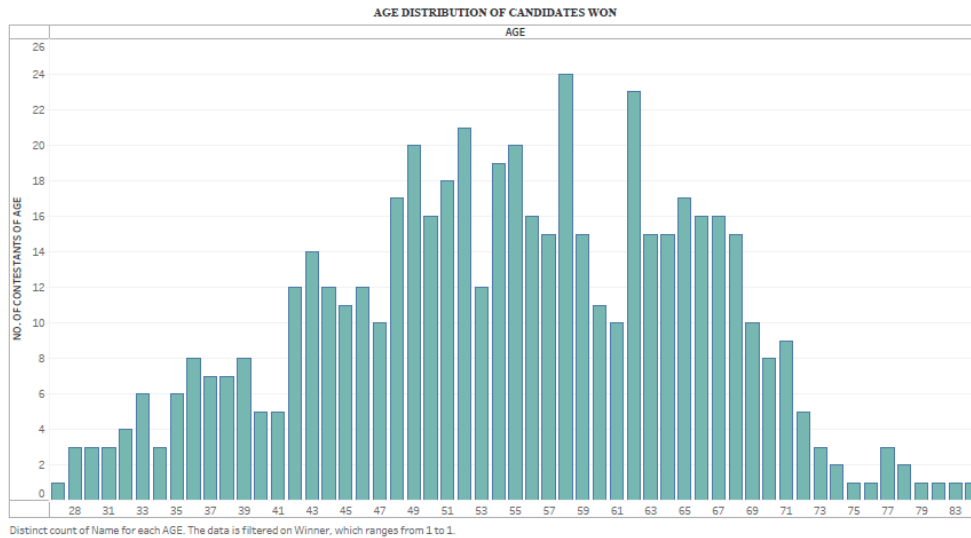https://www.kaggle.com/code/tanaypatare/indian-candidates-for-general-election-eda

Activity 1: Connect MySQL and Tableau with the dataset

Explanation video link:

https://drive.google.com/file/d/1HlIL3zx05J706qZevLn8d6PQyu_2bGgM/view?usp=drive_link
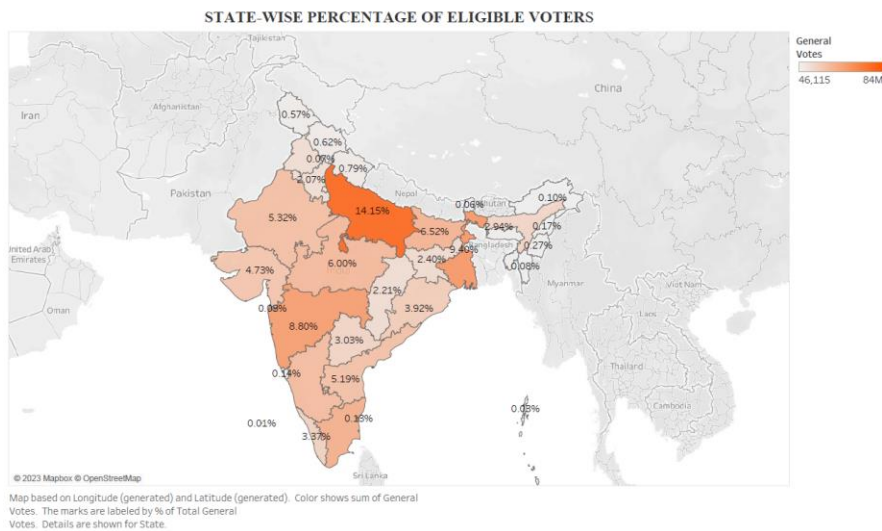
Data Visualization

Activity 1.1: Age distribution of candidates(winner)

AGE DISTRIBUTION OF CANDIDATES WON

Distinct count of Name for each AGE. The data is filtered on Winner, which ranges from 1 to 1.

Explanation video link:

https://drive.google.com/file/d/1gi3ZdzprLxv-AjlEqhwsRpUWdReghEG_/view?usp=drive_link

Activity 1.2: State-wise Percentage of eligible voters

STATE-WISE PERCENTAGE OF ELIGIBLE VOTERS

Map based on Longitude (generated) and Latitude (generated). Color shows sum of General Votes. The marks are labeled by % of Total General Votes. Details are shown for State.

Explanation video link:

https://drive.google.com/file/d/1r8LJmRHI_DZ9lWW3zo7QXR_U9-weNX_5/view?usp=drive_link

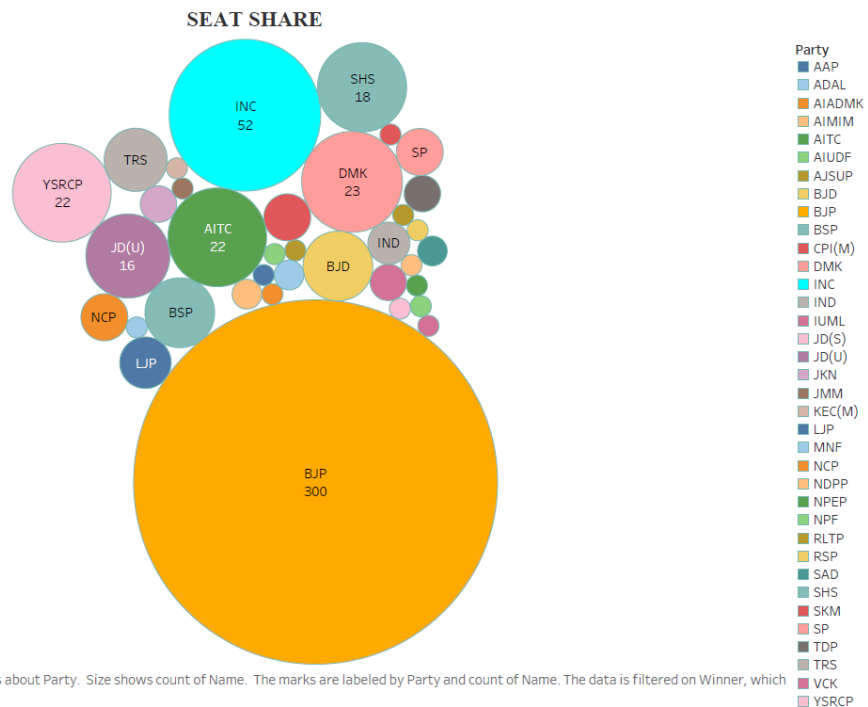**Activity 1.3: Pie Chart To show the Gender Ratio of the elected candidates**

GENDER RATIO WON

Count of Name
539

Gender
- FEMALE
- MALE

14.10%

85.90%
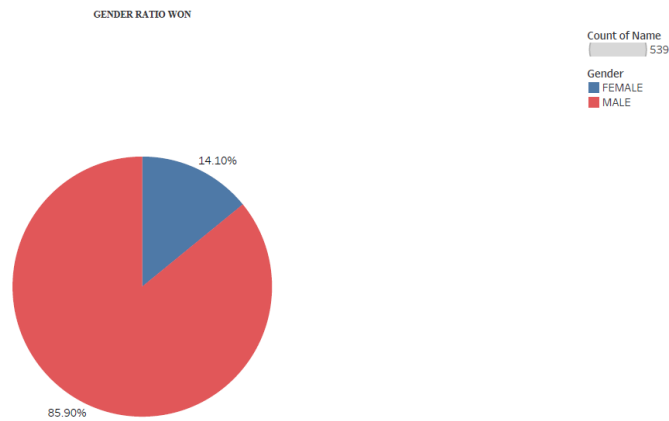
Gender (color) and count of Name (size). The data is filtered on Winner, which ranges from 1 to 1.

Explanation video link:

**https://drive.google.com/file/d/1gTXzRq9aFF5bOntv4T7m9d0dKUqKjUCb/view?usp=drive_link**

Activity 1.4: Bubble Chart to show the seat share of the parties from the total seats

SEAT SHARE

Party
- AAP
- ADAL
- AIADMK
- AIMIM
- AITC
- AIUDF
- AJSUP
- BJD
- BJP
- BSP
- CPI(M)
- DMK
- INC
- IND
- IUML
- JD(S)
- JD(U)
- JKN
- JMM
- KEC(M)
- LJP
- MNF
- NCP
- NDPP
- NPEP
- NPF
- RLTP
- RSP
- SAD
- SHS
- SKM
- SP
- TDP
- TRS
- VCK
- YSRCP

INC 52   SHS 18   SP
TRS   DMK 23
YSRCP 22   AITC 22   IND
JD(U) 16   BJD
NCP   BSP
LJP

BJP 300

Party and count of Name. Color shows details about Party. Size shows count of Name. The marks are labeled by Party and count of Name. The data is filtered on Winner, which ranges from 1 to 1.

Explanation video link:

https://drive.google.com/file/d/1gGwzNo6h39GYq6XnMkl4MpzMMfAHCnH-/view?usp=drive_link

Activity 1.5: Pie chart to show distribution of seats by the 3 categories [General, SC, ST]

DISTRIBUTION OF SEATS BY CATEGORY

Distinct count of Name
539

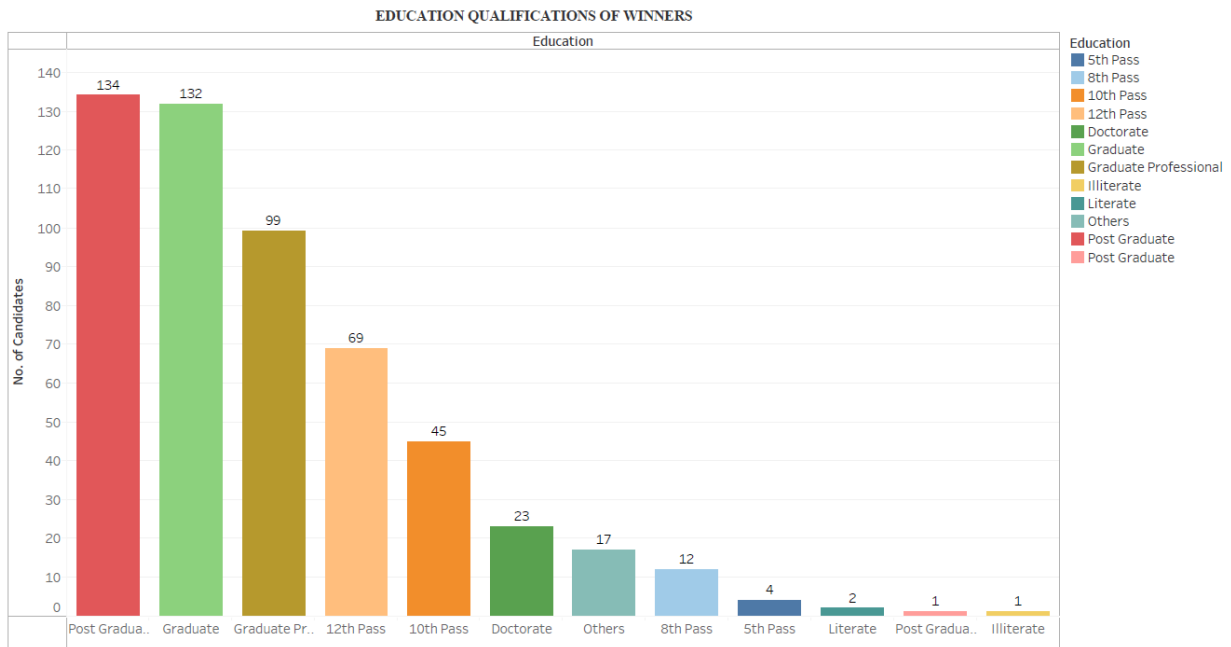Distinct count of N..
55   399
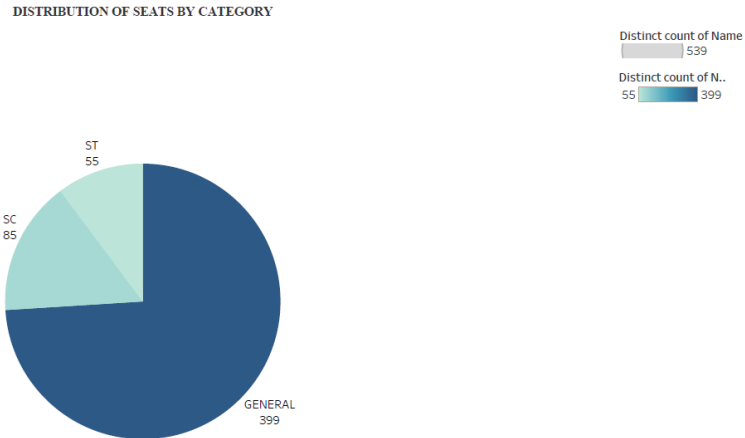
Category and count of Name. Color shows distinct count of Name. Size shows distinct count of Name. The marks are labeled by Category and count of Name. The data is filtered on Winner, which ranges from 1 to 1.

Explanation video link:

https://drive.google.com/file/d/1mU0K0HwMtu1kWWH0nWx_AUfU1o7wzUYb/view?usp=drive_link

Activity 1.6: Bar Graph to show the education qualifications of the winner candidates

EDUCATION QUALIFICATIONS OF WINNERS

Education

| Education |
|---|
| 5th Pass |
| 8th Pass |
| 10th Pass |
| 12th Pass |
| Doctorate |
| Graduate |
| Graduate Professional |
| Illiterate |
| Literate |
| Others |
| Post Graduate |
| Post Graduate |

Count of Name for each Education. Color shows details about Education. The data is filtered on Winner, which ranges from 1 to 1.

Explanation video link:

https://drive.google.com/file/d/1R4Hdtq-aXzjQNAQoj9SeEJMRDDQhvtv0/view?usp=drive_link

Activity 1.7: Graph to represent the total number of cases registered against the winning candidates of parties

TOTAL CRIMINAL CASES REGISTERED
AGAINST WINNING CANDIDATES OF TOP 10
PARTIES
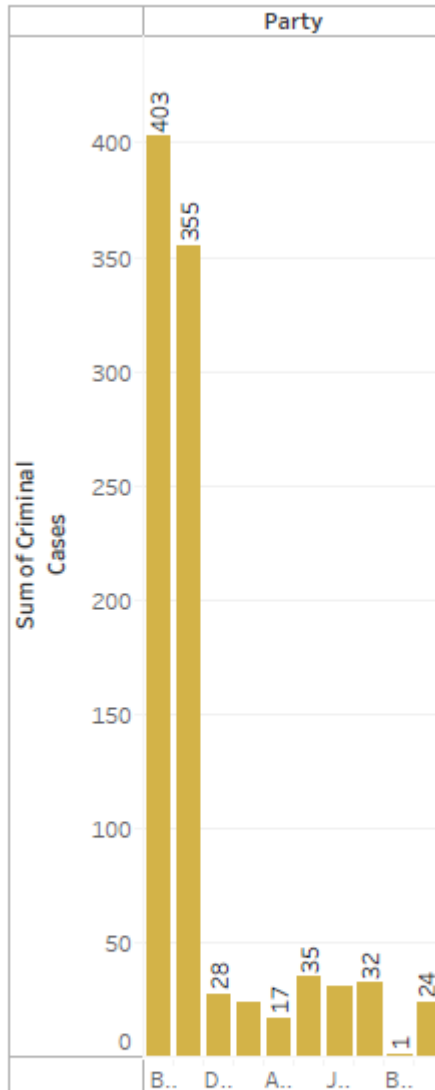
Sum of Criminal
Cases for each Party. The marks are
labeled by sum of Criminal
Cases. The data is filtered on Winner,
which ranges from 1 to 1. The view is
filtered on Party, which keeps 107 of 133
members.

Explanation video link:

https://drive.google.com/file/d/1zuttwcQ4ITBnERyNK3x7F9PM_JuefhuZ/view?usp=drive_link

Activity 1.8: Average age of winner from Top 15 parties according to average age

AVERAGE AGE OF WINNERS AMONG TOP 15 PARTIES

Average of AGE for each Party. Color shows details about Party. The data is filtered on Winner, which ranges from 1 to 1. The view is filtered on Party, which keeps 15 of 133 members.
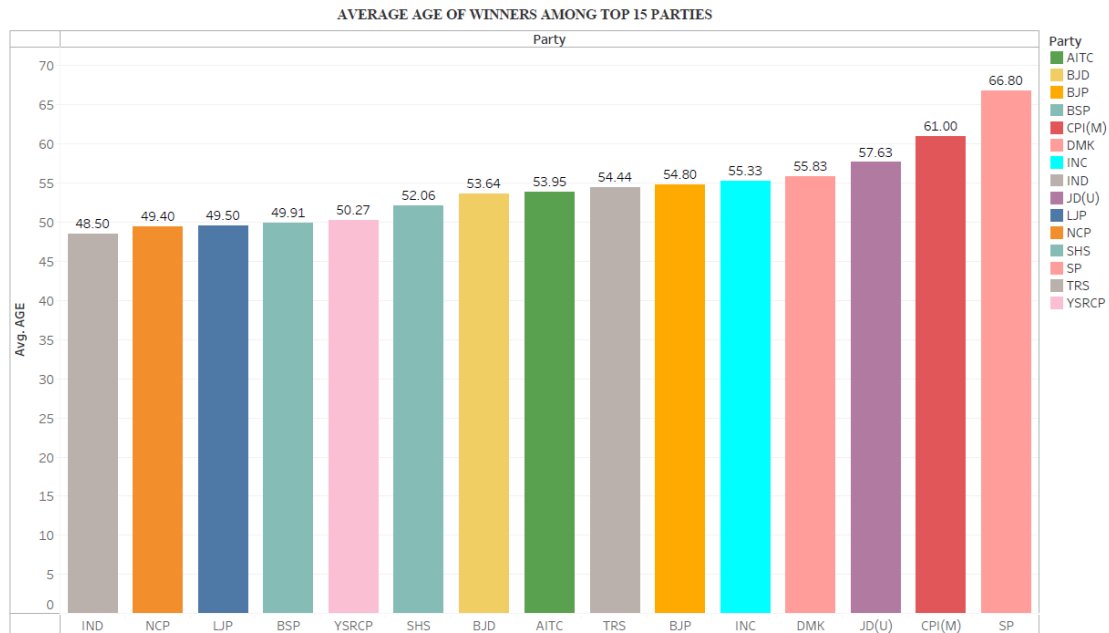
Explanation video link:

https://drive.google.com/file/d/1nH6NlnFkHJIIdE80qxAG_qup0t-DV7nV/view?usp=drive_link

Activity 1.9: Bottom 5 constituencies with lowest voters

5 CONSTITUENCIES WITH LOWEST VOTERS
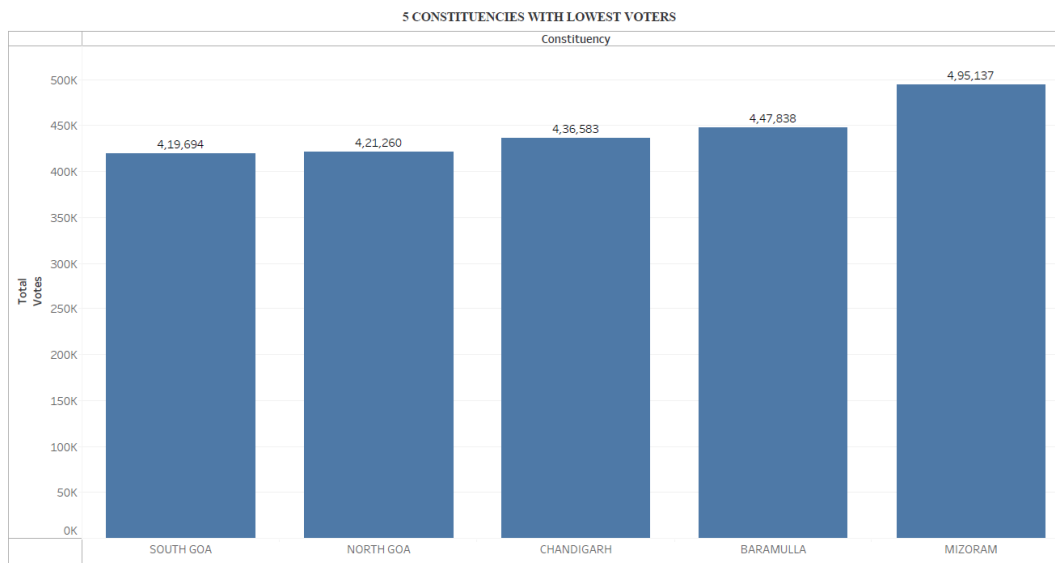
Sum of Total
Votes for each Constituency. The view is filtered on Constituency, which keeps BARAMULLA, CHANDIGARH, MIZORAM, NORTH GOA and SOUTH GOA.

Explanation video link:

https://drive.google.com/file/d/1lYGoVp7xyES2FqqhHj_sfZH6kZy1f3rW/view?usp=drive_link

Activity 1.10: Top 5 constituencies with highest voters

5 CONSTITUENCIES WITH HIGHEST VOTERS
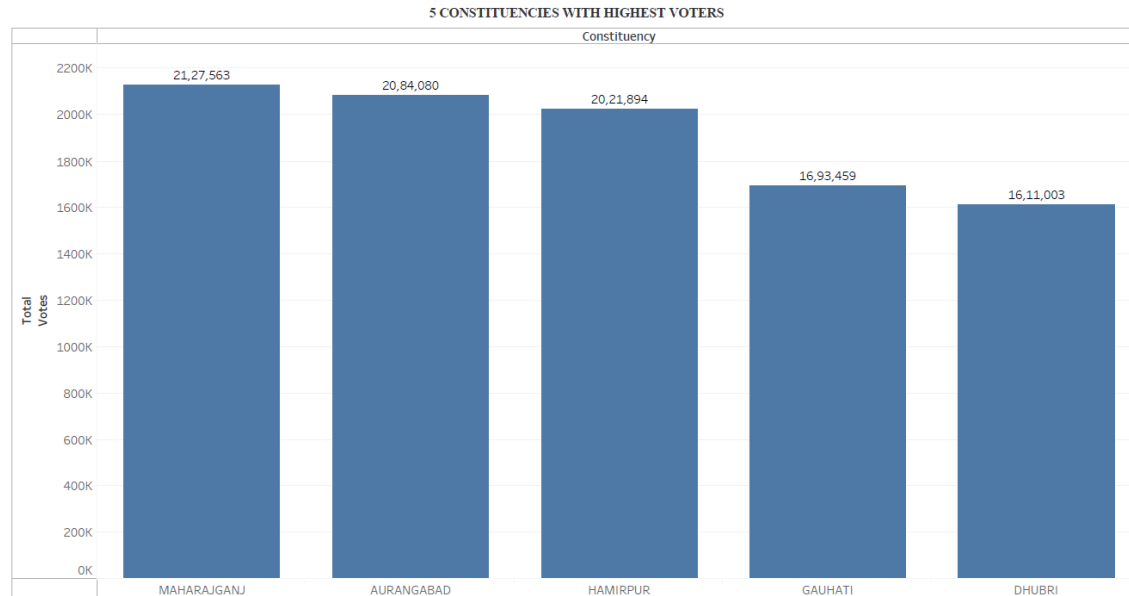
Sum of Total
Votes for each Constituency. The view is filtered on Constituency, which keeps AURANGABAD, DHUBRI, GAUHATI, HAMIRPUR and MAHARAJGANJ.

Explanation video link:

https://drive.google.com/file/d/1AfSn10k9AqS3WX1_IR_KCgqqEK2R3_yi/view?usp=drive_link

Activity 1.11: Top 10 Candidates with highest winning % of total possible votes

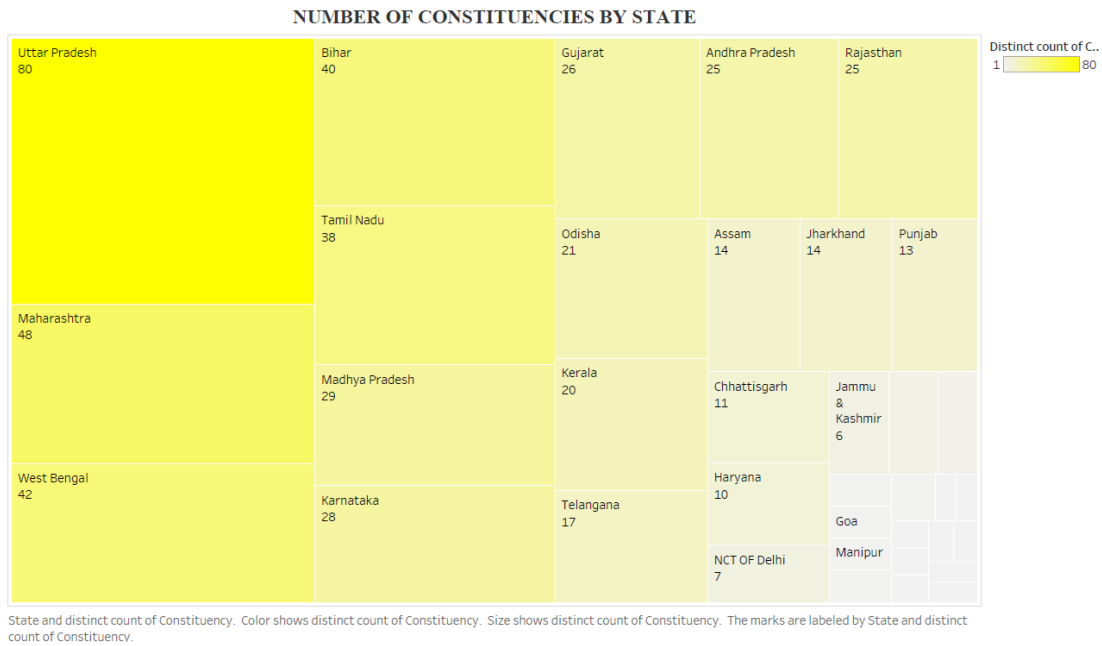**TOP 10 CANDIDATES WITH HIGHEST WINNING PERCENTAGE OF VOTES**
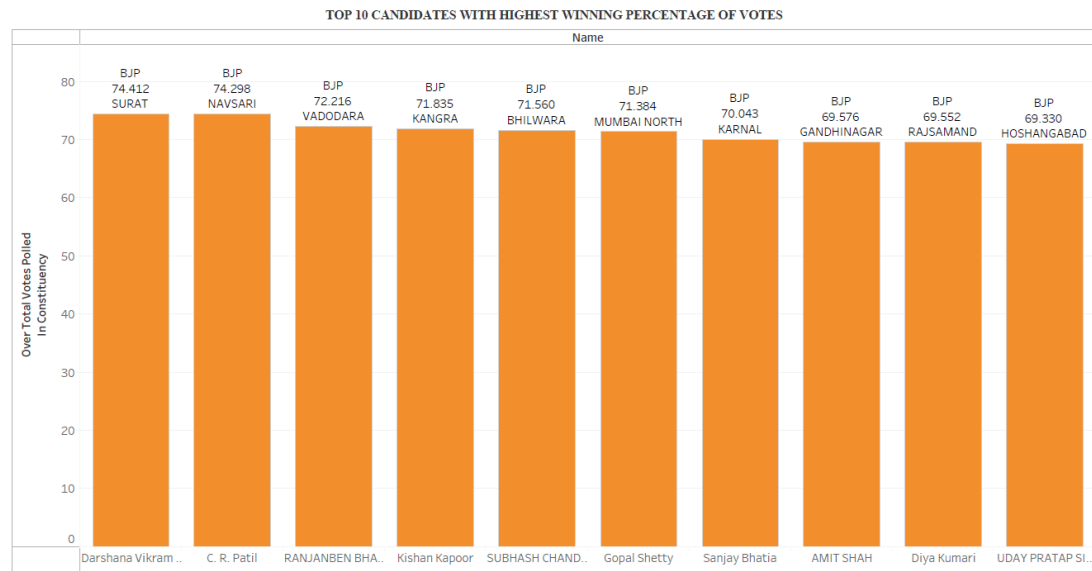
Sum of Over Total Votes Polled
In Constituency for each Name. The marks are labeled by Party, sum of Over Total Votes Polled
In Constituency and Constituency. Details are shown for Constituency. The data is filtered on Winner, which ranges from 1 to 1. The view is filtered on Inclusions (Constituency,Name), which keeps 10
members.

Explanation video link:

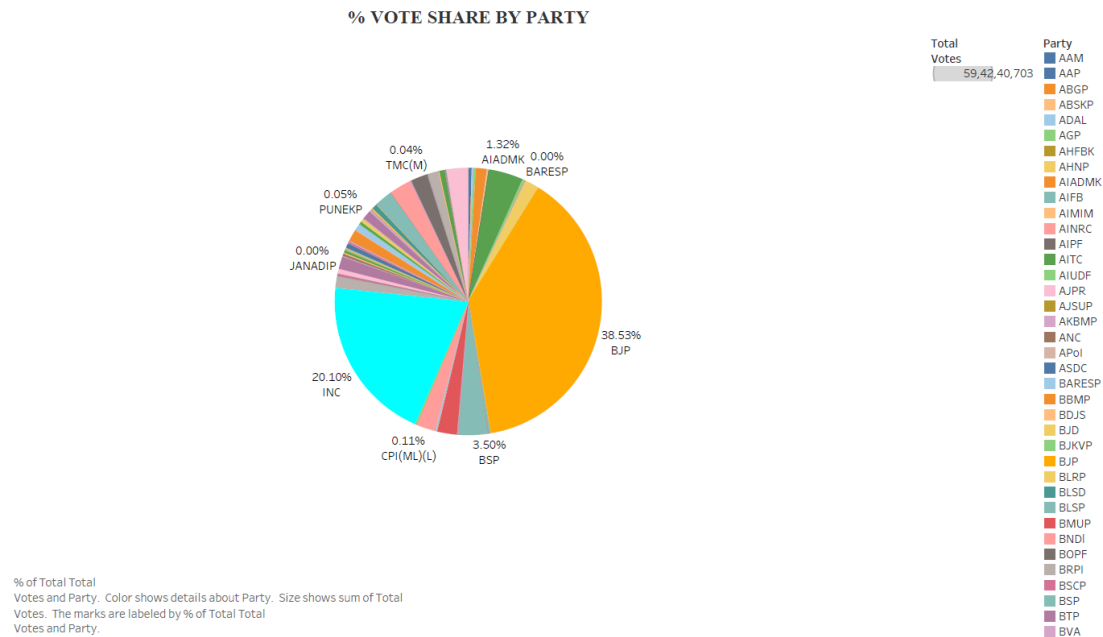**https://drive.google.com/file/d/1PSIMt333hJCfK8IRvmSlXiTy94xIwdSu/view?usp=drive_link**

Activity 1.12: Tree Diagram to show the number of constituencies in each State

NUMBER OF CONSTITUENCIES BY STATE

State and distinct count of Constituency. Color shows distinct count of Constituency. Size shows distinct count of Constituency. The marks are labeled by State and distinct count of Constituency.

Explanation video link:

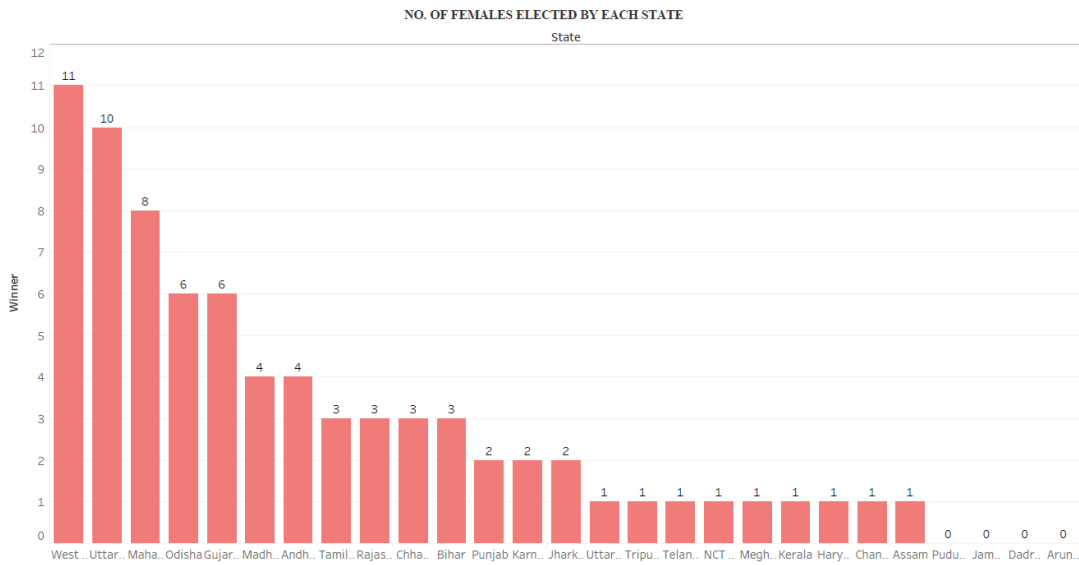**https://drive.google.com/file/d/1e40aT9L2NHrbsdJpoVhGtg1WfPdeHgSw/view?usp=drive_link**

Activity 1.13: Pie-chart to show % vote share won by each party

% VOTE SHARE BY PARTY

% of Total Total
Votes and Party. Color shows details about Party. Size shows sum of Total
Votes. The marks are labeled by % of Total Total
Votes and Party.

Explanation video link:

https://drive.google.com/file/d/1hX344TlKWEi4lgV-B8GxU3UEAPpBd_m2/view?usp=drive_link

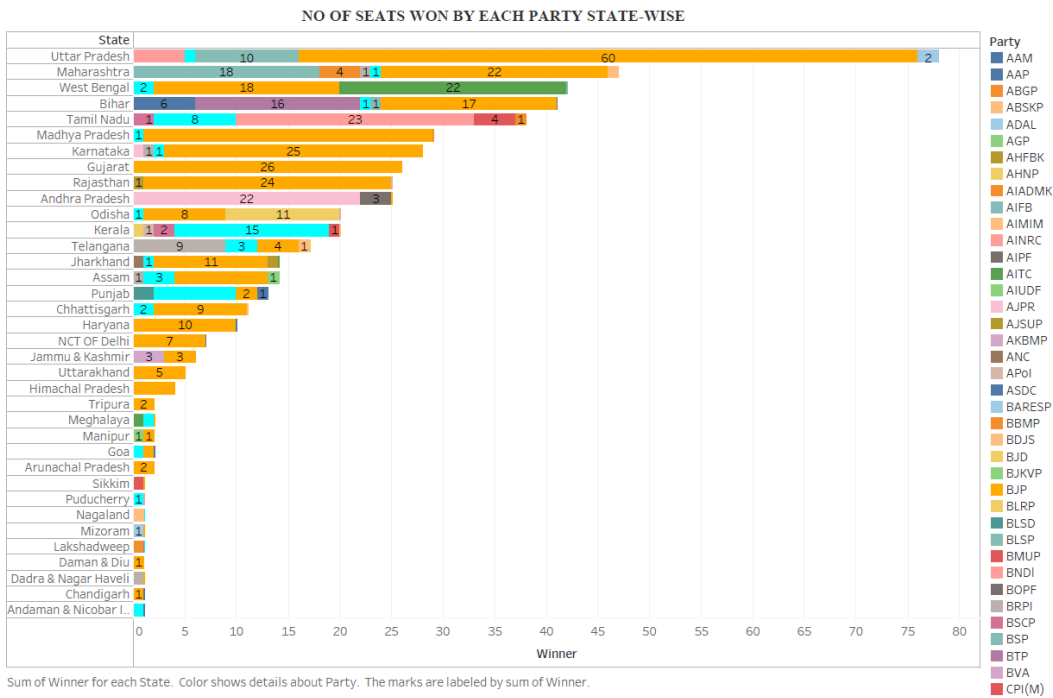## Activity 1.14: Graph to show the number of females elected in each State

NO. OF FEMALES ELECTED BY EACH STATE

Sum of Winner for each State. The data is filtered on Gender, which keeps FEMALE.

Explanation video link:

https://drive.google.com/file/d/1sa2vgEviR5mfl8U9uGzuZAzNJreduIKd/view?usp=drive_link

Activity 1.15: Total number of seats won by each party in each state

NO OF SEATS WON BY EACH PARTY STATE-WISE

Sum of Winner for each State. Color shows details about Party. The marks are labeled by sum of Winner.

Explanation video link:

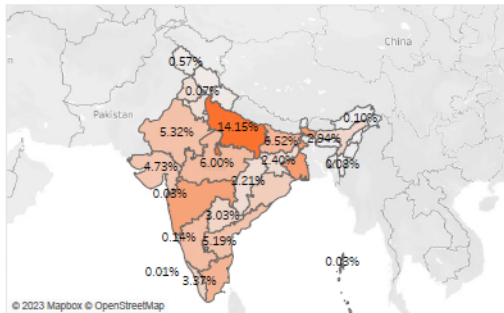https://drive.google.com/file/d/1nSxlxvutGEdtc2YF7_psUQIFFDx2eFG4/view?usp=drive_link

Dashboard

DASHBOARD 1

NUMBER OF CONSTITUENCIES BY STATE

Uttar Pradesh 80	Maharashtra 48	Bihar 40	Madhya Pradesh 29	Gujarat 26	Odisha 21	Assam 14	Haryana 10
				Andhra Pradesh 25	Kerala 20	Jharkhand 14	NCT OF Delhi 7
	West Bengal 42	Tamil Nadu 38	Karnataka 28	Rajasthan 25	Telangana 17	Punjab 13	

STATE-WISE PERCENTAGE OF ELIGIBLE VOTERS

© 2023 Mapbox © OpenStreetMap

5 CONSTITUENCIES WITH LOWEST VOTERS

5 CONSTITUENCIES WITH HIGHEST VOTERS

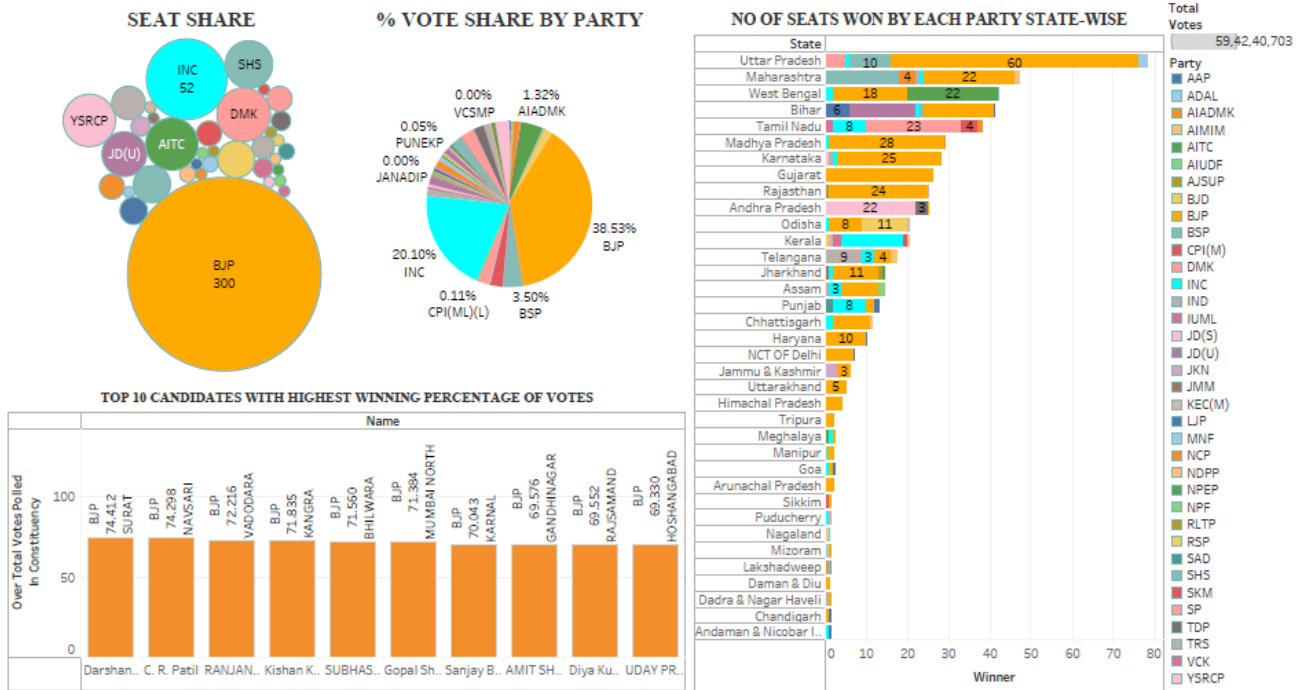### DISTRIBUTION OF SEATS BY CATEGORY

ST 55
SC 85
GENERAL 399

Explanation video link:

Dashboard 1:
https://drive.google.com/file/d/10vXAfdiwCis1Vwm6ZXVdQjEQM11inlW4/view?usp=drive_link

DASHBOARD 2

SEAT SHARE

% VOTE SHARE BY PARTY

- 0.00% VCSMP
- 1.32% AIADMK
- 0.05% PUNEKP
- 0.00% JANADIP
- 38.53% BJP
- 20.10% INC
- 0.11% CPI(ML)(L)
- 3.50% BSP

NO OF SEATS WON BY EACH PARTY STATE-WISE

Total Votes
59,42,40,703

Party
AAP, ADAL, AIADMK, AIMIM, AITC, AIUDF, AJSUP, BJD, BJP, BSP, CPI(M), DMK, INC, IND, IUML, JD(S), JD(U), JKN, JMM, KEC(M), LJP, MNF, NCP, NDPP, NPEP, NPF, RLTP, RSP, SAD, SHS, SKM, SP, TDP, TRS, VCK, YSRCP

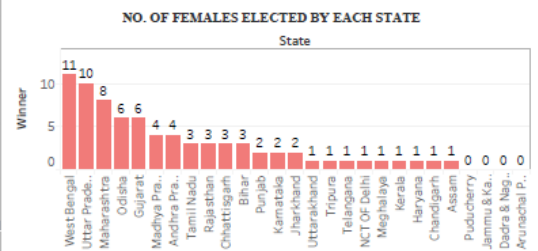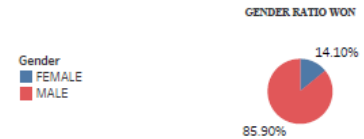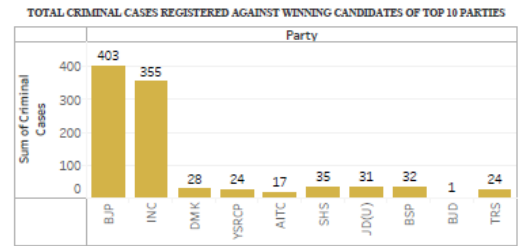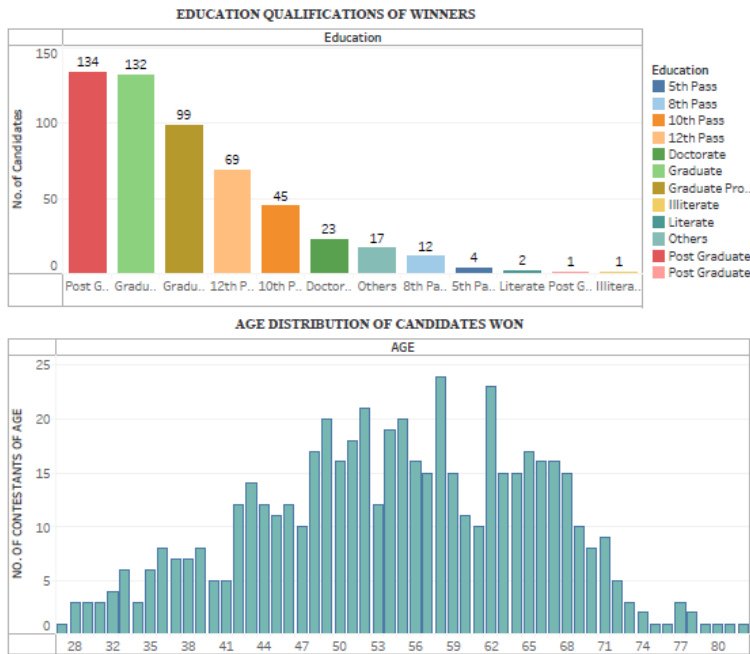### TOP 10 CANDIDATES WITH HIGHEST WINNING PERCENTAGE OF VOTES

Explanation video link:

Dashboard 2:

https://drive.google.com/file/d/1L8Iknf_4u9EE8tgiVK-gR2lJY3WG53wN/view?usp=drive_link

DASHBOARD 3

EDUCATION QUALIFICATIONS OF WINNERS

Education

134, 132, 99, 69, 45, 23, 17, 12, 4, 2, 1, 1

Education:
- 5th Pass
- 8th Pass
- 10th Pass
- 12th Pass
- Doctorate
- Graduate
- Graduate Pro..
- Illiterate
- Literate
- Others
- Post Graduate
- Post Graduate

TOTAL CRIMINAL CASES REGISTERED AGAINST WINNING CANDIDATES OF TOP 10 PARTIES

Party — Sum of Criminal Cases

BJP 403, INC 355, DMK 28, YSRCP 24, AITC 17, SHS 35, JD(U) 31, BSP 32, BJD 1, TRS 24

AGE DISTRIBUTION OF CANDIDATES WON

AGE — NO. OF CONTESTANTS OF AGE

GENDER RATIO WON

Gender:
- FEMALE
- MALE

14.10% / 85.90%

NO. OF FEMALES ELECTED BY EACH STATE

State — Winner

West Bengal 11, Uttar Prade.. 10, Maharashtra 8, Odisha 6, Gujarat 6, Madhya Pra.. 4, Andhra Pra.. 4, Tamil Nadu 3, Rajasthan 3, Chhattisgarh 3, Bihar 3, Punjab 2, Karnataka 2, Jharkhand 2, Uttarakhand 1, Tripura 1, Telangana 1, NCT Of Delhi 1, Meghalaya 1, Kerala 1, Haryana 1, Chandigarh 1, Assam 1, Puducherry 0, Jammu & Ka.. 0, Dadra & Nag.. 0, Arunachal P.. 0

Explanation video link:

Dashboard 3:

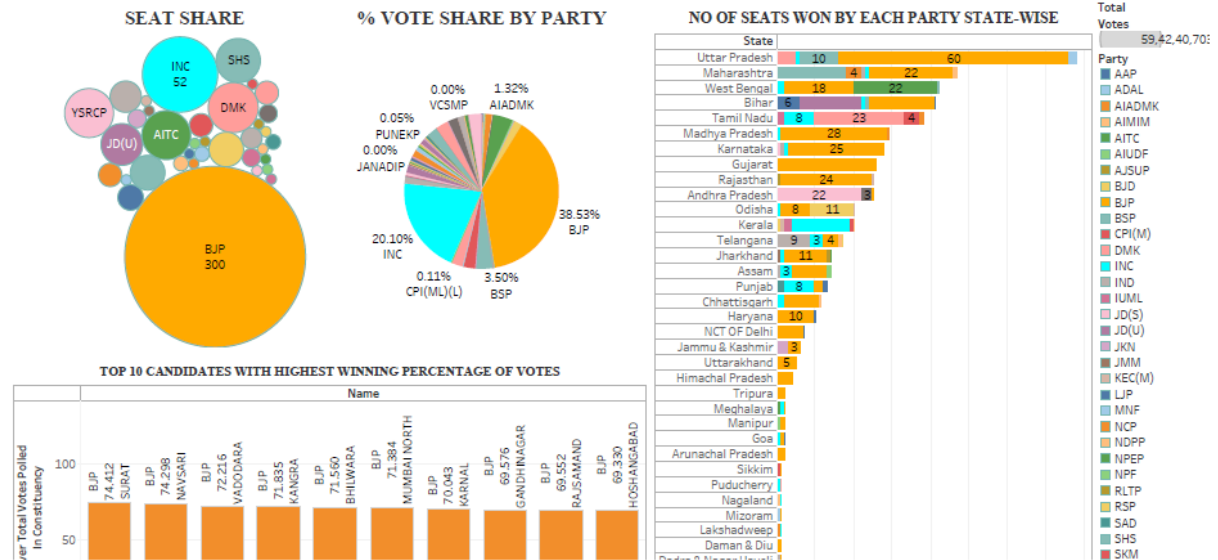**https://drive.google.com/file/d/1ottEVSQMQd7-zoZJr7JJJXojjCRoBIMp/view?usp=drive_link**

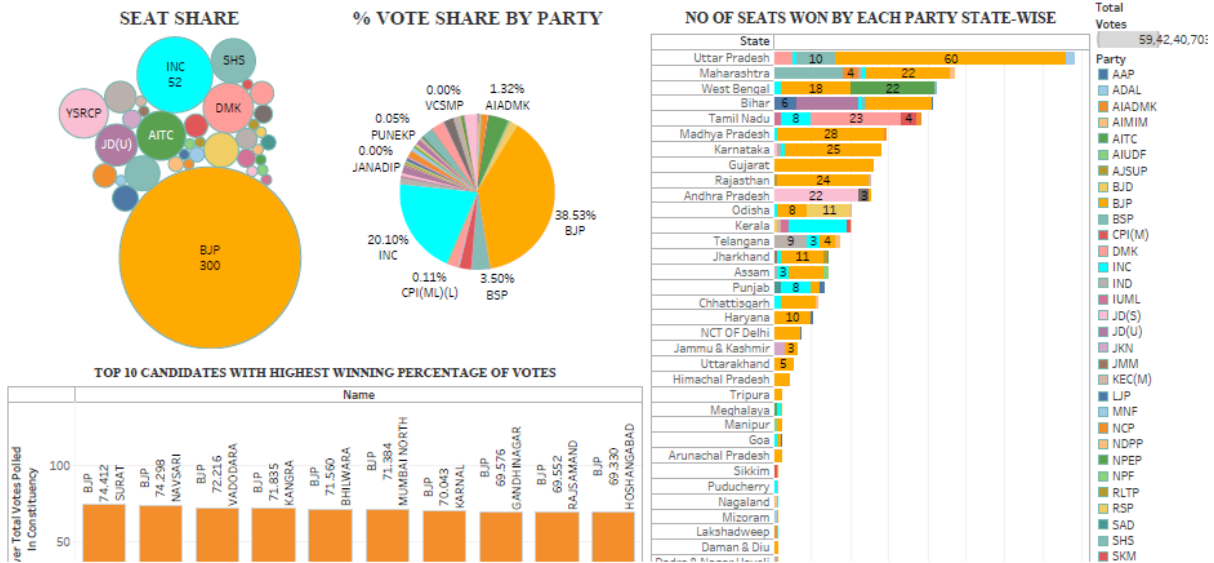# Story

STORY 1 SCENE 1

Biggest Parties in Loksabha

BJP is the biggest party by Seats and Vote % i.e. 300 seats and 38.5%. BJP won the highest seats in most no. of states. INC is second largest party with 52 seats and 20.10 % Vote. followed by DMK, AITC, YSRCP and BSP respectively.

Also all the Top 10 Candidates with Highest winning Percentage belonged to the BJP.

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STORY 1 SCENE 2

Biggest Parties in Loksabha

BJP is the biggest party by Seats and Vote % i.e. 300 seats and 38.5%. BJP won the highe... | Also all the Top 10 Candidates with Highest winning Percentage belonged to the BJP.

Also, all the Top 10 Candidates with Highest winning Percentage belonged to the BJP.

Explanation video link:

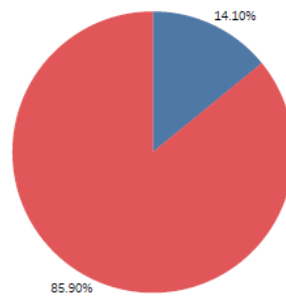**Story 1: https://drive.google.com/file/d/1UVTm0kejwRomTnU9ear4Vb6uuHmGTdwv/view?usp=drive_link**

STORY 2 SCENE 1

Women MPs in Loksabha

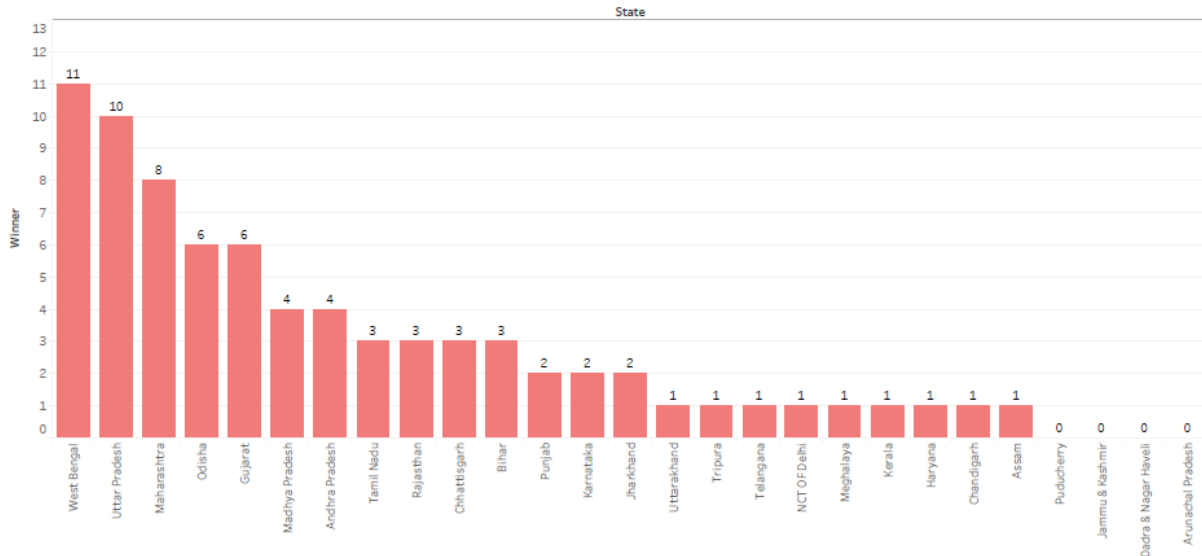|	
Women MPs account for only 14.10% of the total MPs in Loksabha.	West Bengal (11) accounts for highest no. of Women MPs followed by UP(10), Maharashtra (8), and Odisha (6). While Puducherry, J&K, and Arunachal Pradesh have no Female MPs.

Gender
■ FEMALE
■ MALE

Count of Name
☐ 539

14.10%

85.90%

Women MP's account for only 14.10% of the total MP's in.

STORY 2 SCENE 2

Women MPs in Loksabha

| Women MPs account for only 14.10% of the total MPs in Loksabha. | West Bengal (11) accounts for highest no. of Women MPs followed by UP(10), Maharashtra (8), and Odisha (6). While Puducherry, J&K, and Arunachal Pradesh have no Female MPs. |

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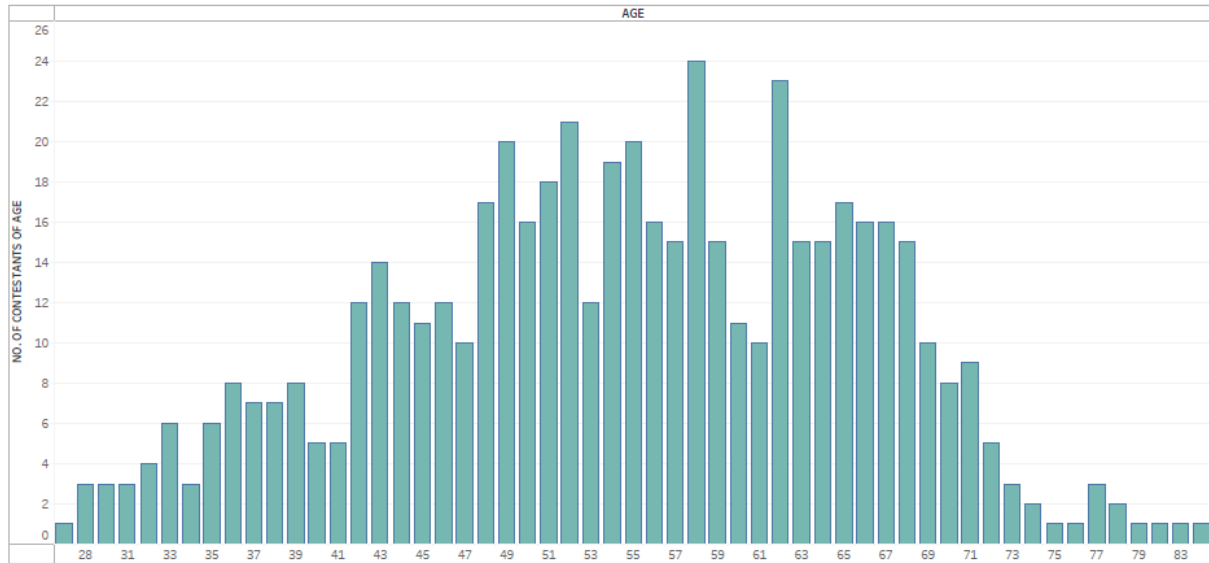
Explanation video link:

Story 2: **https://drive.google.com/file/d/1t91cOyMY2HbjkiDqu7qoDeADnJrIjHt7/view?usp=drive_link**

STORY 3 SCENE 1

Age of Loksabha Winners

NCP, LJP and BSP have Youngest MPs among all major political parties. While SP has oldest MPs.

Median Age of Lok Sabha winners is 58 years while Average Age is 54.44 years.

STORY 3 SCENE 2

Age of Loksabha Winners

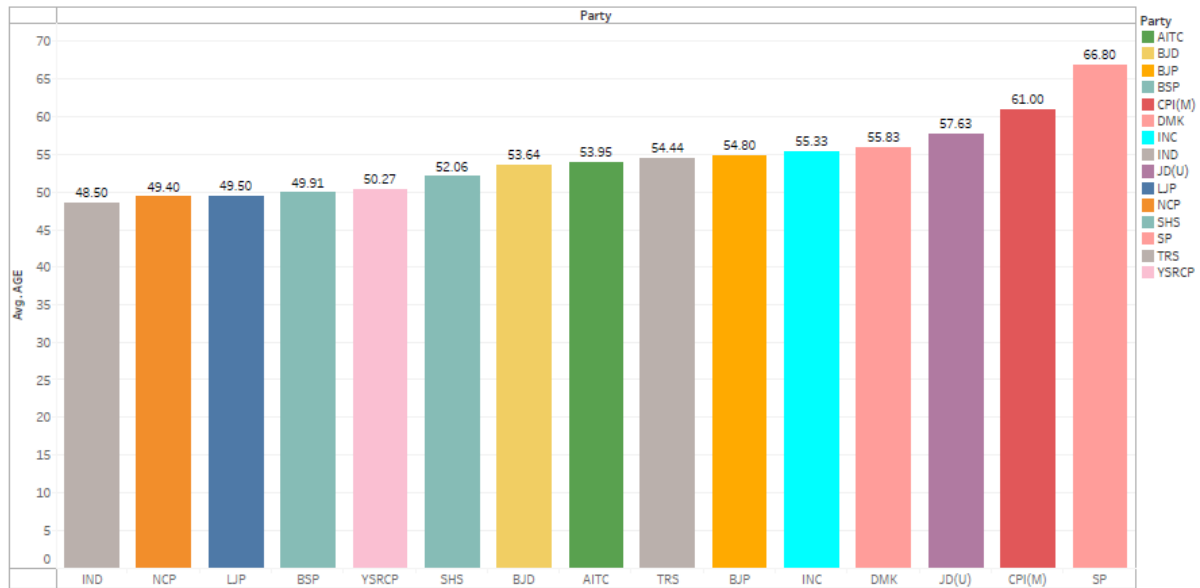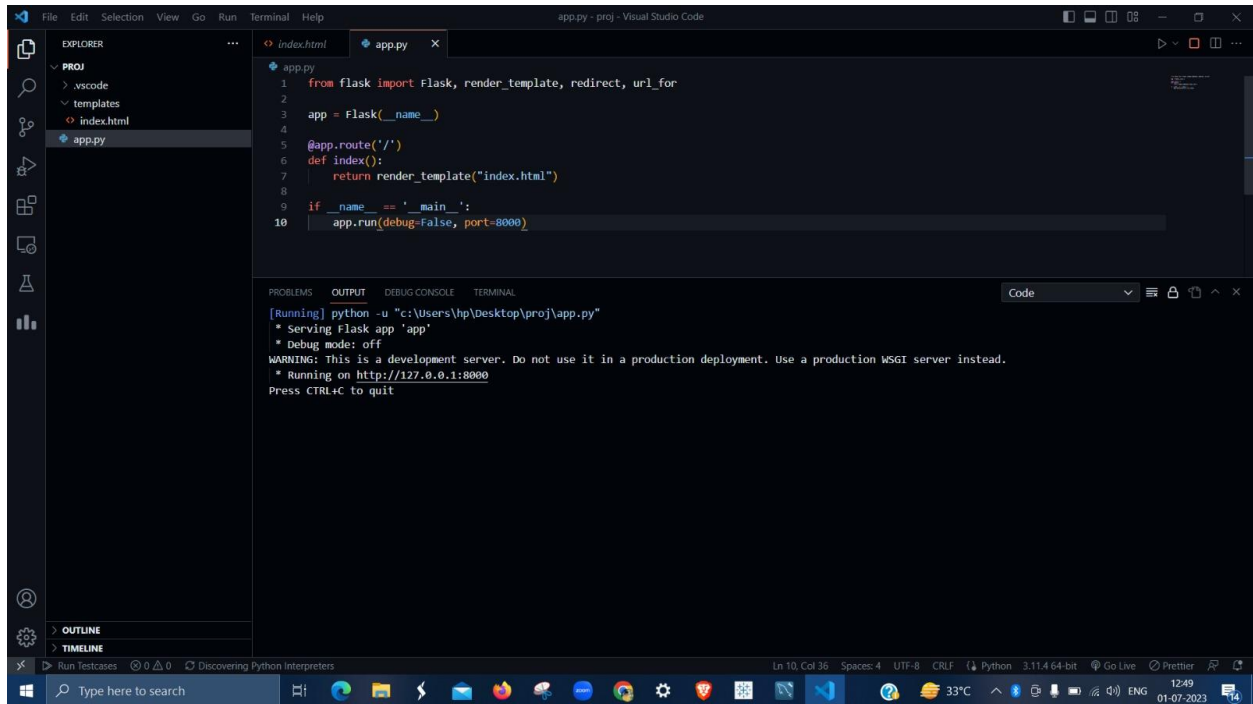| Median Age of Loksabha winners is 58 years while Average Age is 54.44 years. | NCP, LJP and BSP have Youngest MPs among all major political parties. While SP has oldest MPs. |

NCP, LJP and BSP have Youngest MPs amongst all major political parties. While SP has oldest MPs

Explanation video link:

Story 3: https://drive.google.com/file/d/1QhhdN1kCUlBz2_IuDwNLDz5_YUeUv4q_/view?usp=drive_link
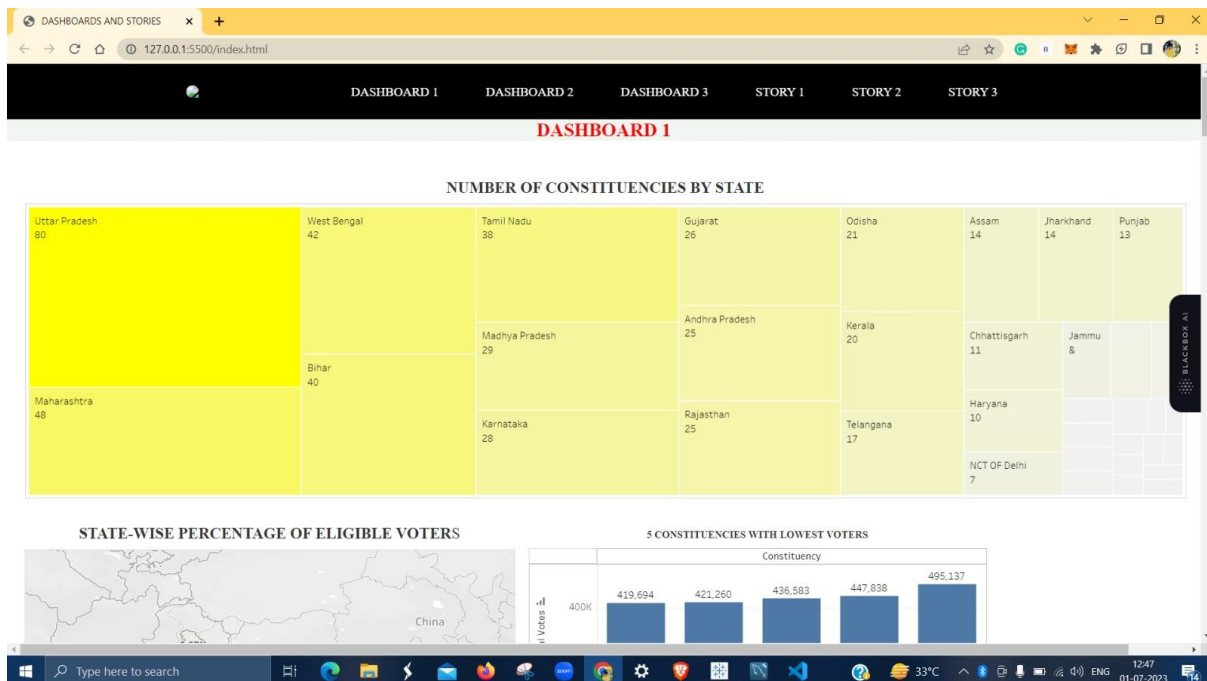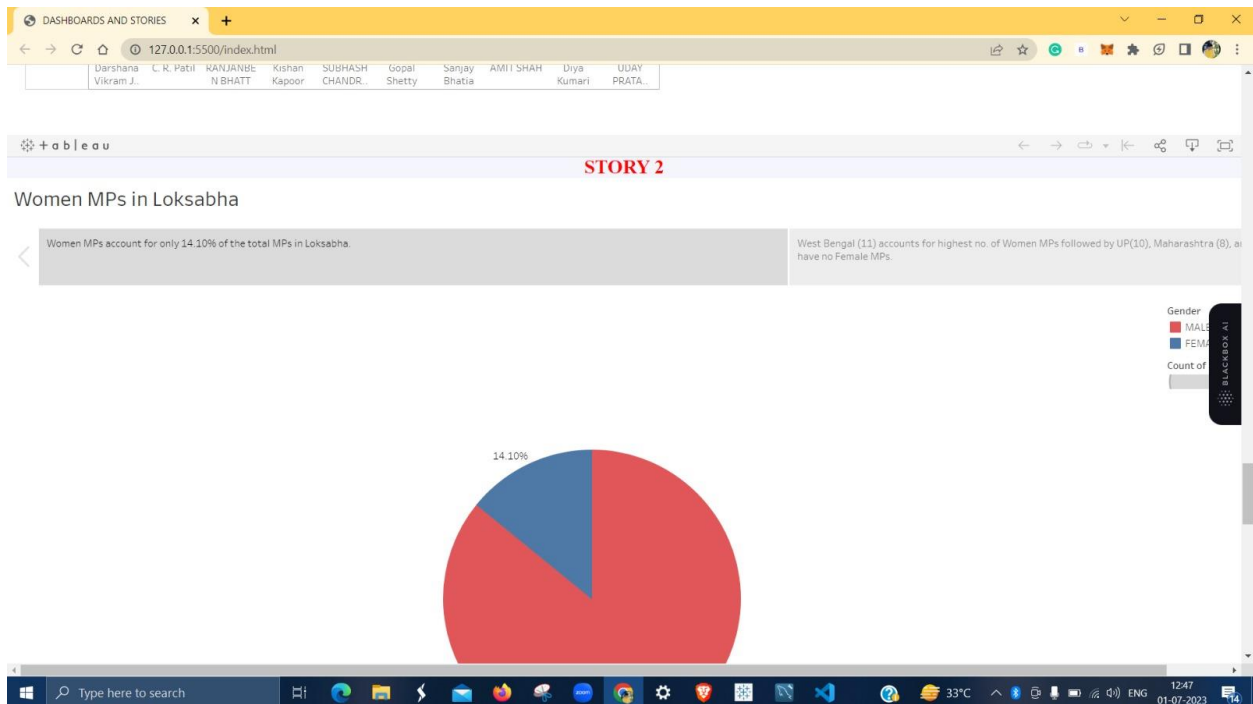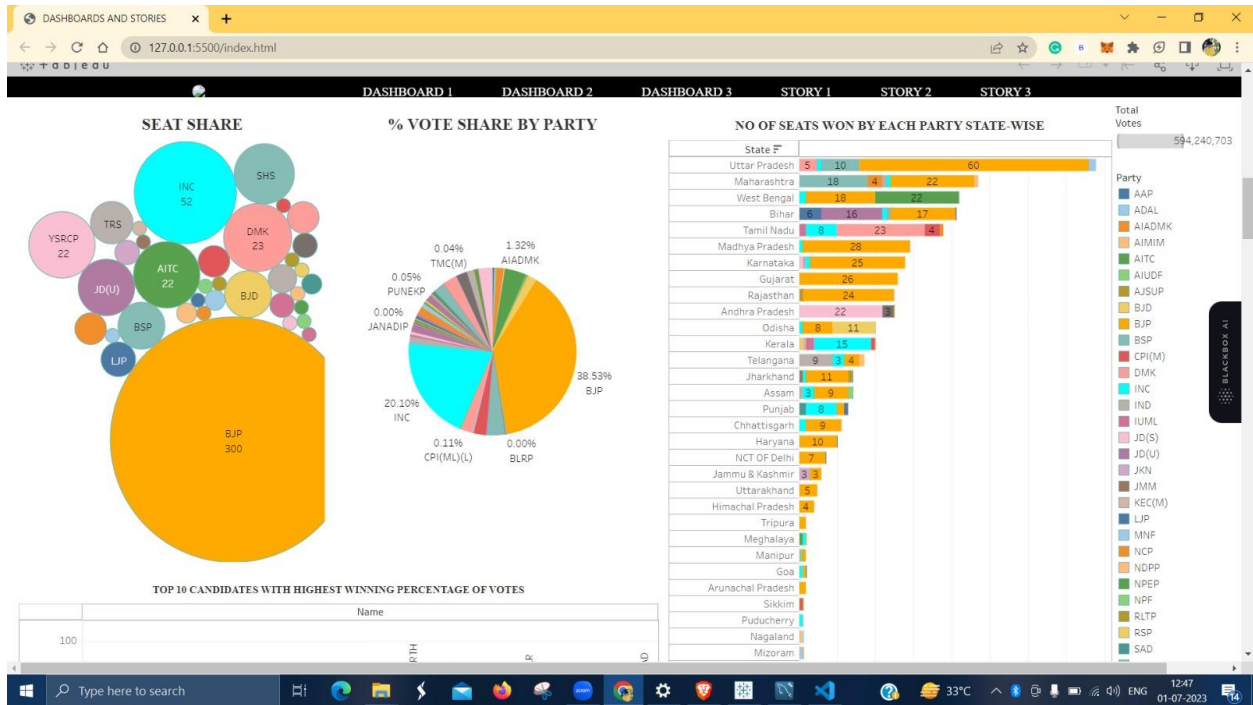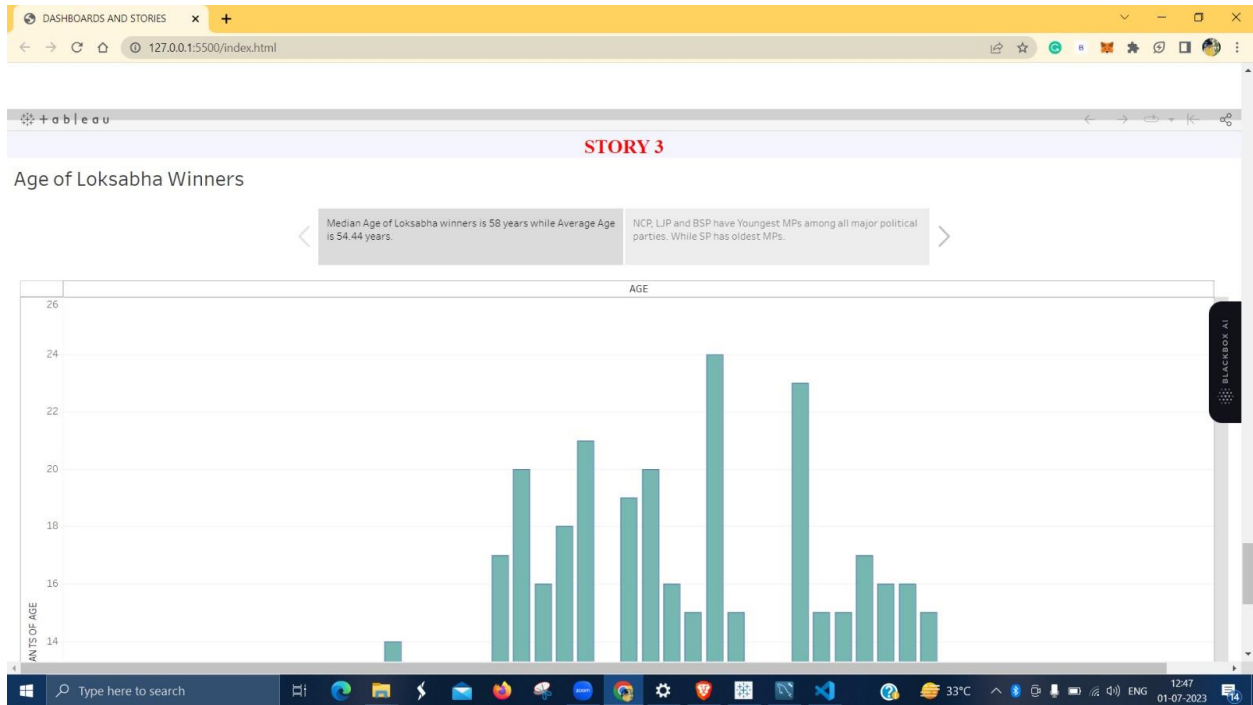
Web Integration

+ableau

DASHBOARD 1   DASHBOARD 2   DASHBOARD 3   STORY 1   STORY 2   STORY 3

SEAT SHARE

INC 52

SHS

YSRCP 22

TRS

DMK 23

JD(U)

AITC 22

BJD

BSP

LJP

BJP 300

% VOTE SHARE BY PARTY

0.04% TMC(M)

1.32% AIADMK

0.05% PUNEKP

0.00% JANADIP

38.53% BJP

20.10% INC

0.11% CPI(ML)(L)

0.00% BLRP

NO OF SEATS WON BY EACH PARTY STATE-WISE

Total Votes

594,240,703

State ⇌	
Uttar Pradesh	5 10 60
Maharashtra	18 4 22
West Bengal	18 22
Bihar	6 16 17
Tamil Nadu	8 23 4
Madhya Pradesh	28
Karnataka	25
Gujarat	26
Rajasthan	24
Andhra Pradesh	22 3
Odisha	8 11
Kerala	15
Telangana	9 3 4
Jharkhand	11
Assam	3 9
Punjab	8
Chhattisgarh	9
Haryana	10
NCT OF Delhi	7
Jammu & Kashmir	3 3
Uttarakhand	5
Himachal Pradesh	4
Tripura	
Meghalaya	
Manipur	
Goa	
Arunachal Pradesh	
Sikkim	
Puducherry	
Nagaland	
Mizoram	

Party

AAP
ADAL
AIADMK
AIMIM
AITC
AIUDF
AJSUP
BJD
BJP
BSP
CPI(M)
DMK
INC
IND
IUML
JD(S)
JD(U)
JKN
JMM
KEC(M)
LJP
MNF
NCP
NDPP
NPEP
NPF
RLTP
RSP
SAD

TOP 10 CANDIDATES WITH HIGHEST WINNING PERCENTAGE OF VOTES

Name

100

| Darshana Vikram J.. | C. R. Patil | RANJANBE N BHATT | Kishan Kapoor | SUBHASH CHANDR.. | Gopal Shetty | Sanjay Bhatia | AMIT SHAH | Diya Kumari | UDAY PRATA.. |

+ableau

STORY 2

Women MPs in Loksabha

Women MPs account for only 14.10% of the total MPs in Loksabha.

West Bengal (11) accounts for highest no. of Women MPs followed by UP(10), Maharashtra (8), an.. have no Female MPs.

Gender

MALE
FEMA..

Count of

14.10%

⚙ +ableau

STORY 3

Age of Loksabha Winners

| Median Age of Loksabha winners is 58 years while Average Age is 54.44 years. | NCP, LJP and BSP have Youngest MPs among all major political parties. While SP has oldest MPs. | > |

Activity 1: Integrating with Tableau Public

Explanatory video:

https://drive.google.com/file/d/15xDHHEWlC4QAFqhsd6urFlwVFd8acDBB/view?usp=drive_link

Activity 2: Integrating with bootstrap website

Explanatory video:

https://drive.google.com/file/d/1UJG3FLQJ2IwcT-Jwx-u0IvH27vopv6ZR/view?usp=drive_link

Activity 3: Implementing Flask

Explanatory video:

https://drive.google.com/file/d/1XUQPLOGxks72_ofJxnxoLiFXS2XNaJ3-/view?usp=drive_link

Activity 4: Publishing on Tableau Public

Explanatory video:

https://drive.google.com/file/d/1bQx2_jSIiBXq5eIu9Vipv0HRABkKwUjJ/view?usp=drive_link