This project was purely experimental, and all of the data used in this was fabricated.

The dataset will not be available, since its mostly fake, used for the sake of the project ONLY.

NITTE EDUCATION TRUST | NMAM INSTITUTE OF TECHNOLOGY

19CS605 MINI PROJECT EVALUATION

Election Prediction System

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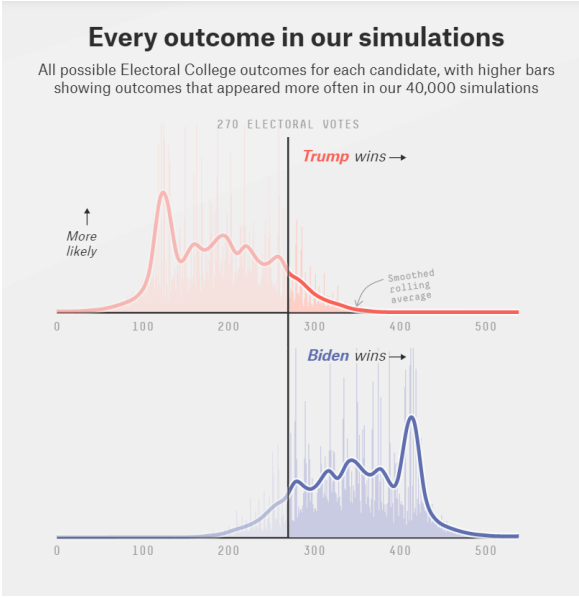
1. Introduction

- Predicting election results is a hot area in political science.
- Election Forecasting appeals to a basic human urge to peek into the future.
- Ever since elections were invented to choose leaders in powers, humans have been tempted to find ways that would tell them with some degree of certainty who would win an election.



2. Problem definition

- Problem Definition:-

To Predict whether a person standing for elections will Win or Lose given various factors.

The factors taken into considerations are:

- Age
- Gender
- The Political Party they belong to
- Number of Criminal Cases
- The Education Level

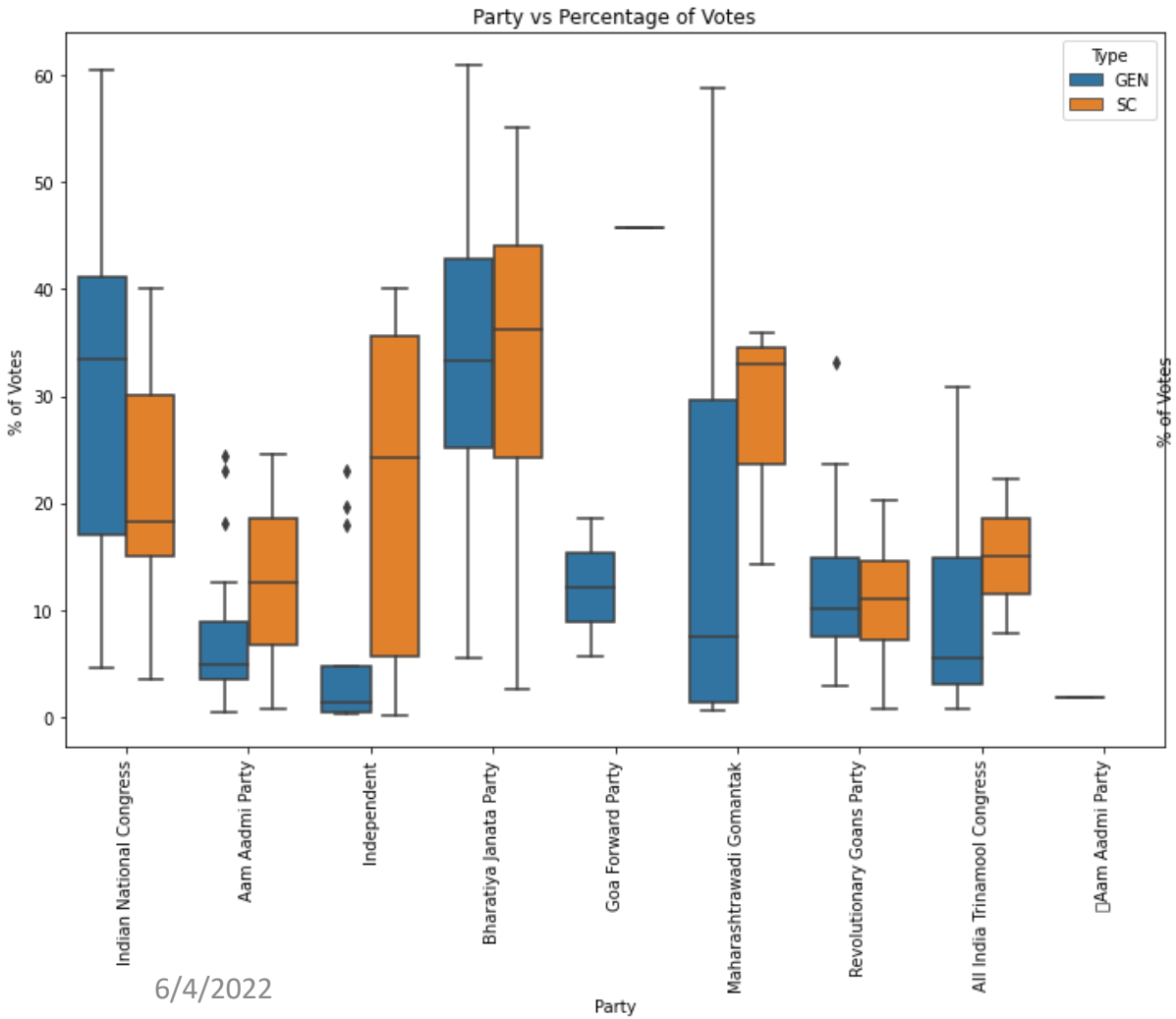
3. Work Done

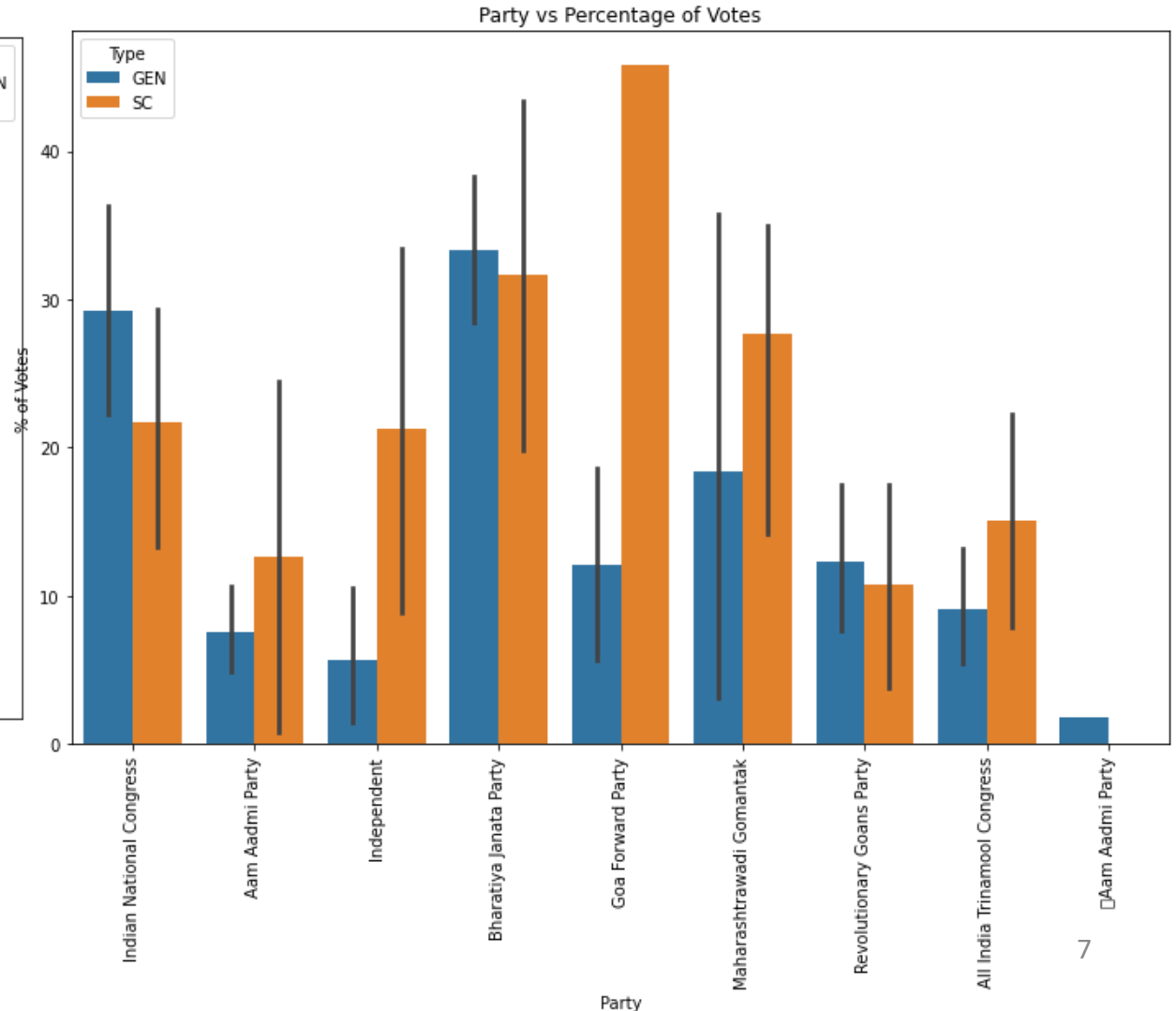
- In our case, we created a dataset by pulling the values from the Election Commission of India website regarding the recent Goan Election.
- A total of 159 values were pulled from the website relating to the following attributes:

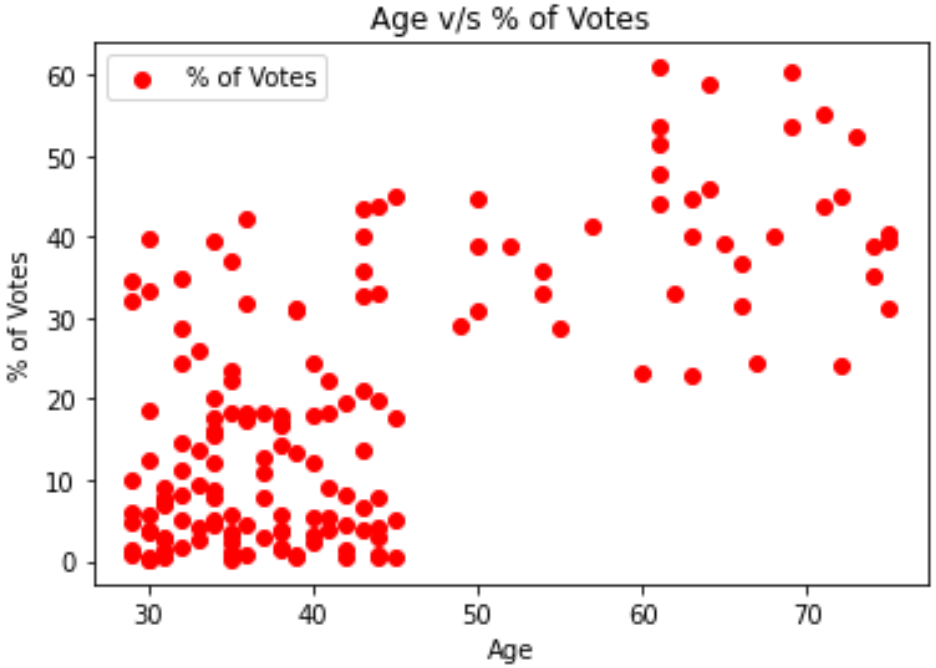
```
Index(['AC Name', 'AC No.', 'Type', 'District', 'Candidate', 'Party',
       'EVM Votes', 'Postal Votes', 'Total Votes', '% of Votes',
       'Party Number', 'District Number', 'Age', 'Marital Status',
       'Number of Criminal Cases', 'Gender', 'Education', 'Result'],
      dtype='object')
```

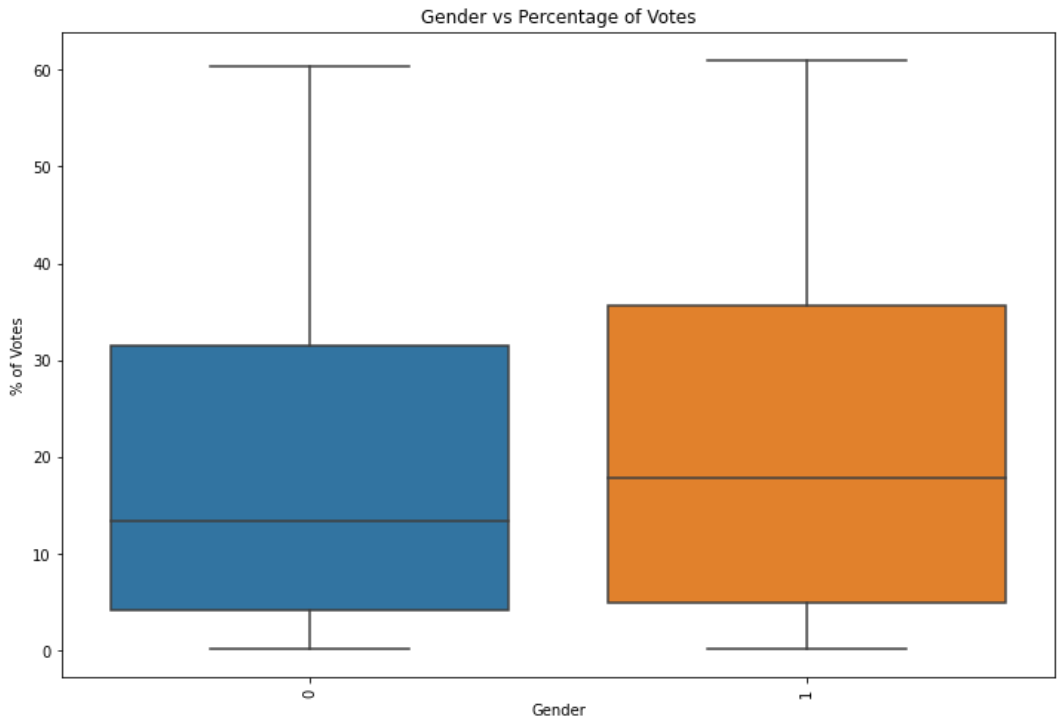
	AC Name	AC No.	Type	District	Candidate	Party	EVM Votes	Postal Votes	Total Votes	% of Votes	Party Number	District Number	Age	Marital Status	Number of Criminal Cases	Gender	Education	Result
0	Aldona	10	GEN	North Goa	CARLOS ALVARES FERREIRA	Indian National Congress	9074	246	9320.0	41.43	1	1	57	Single	3	MALE	Post Graduate	1
1	Benaulim	32	GEN	South Goa	Venzy Viegas	Aam Aadmi Party	4996	144	5140.0	24.34	2	2	67	Married	0	MALE	Post Graduate	1
2	Bicholim	3	SC	North Goa	DR. CHANDRAKANT SHETYE	Independent	8912	378	9290.0	35.89	3	1	54	Divorced	0	MALE	Graduate	1
3	Calangute	8	GEN	North Goa	Michael Vincent Lobo	Indian National Congress	9103	182	9285.0	45.09	1	1	45	Single	0	FEMALE	Doctorate	1
4	Canacona	40	GEN	South Goa	Ramesh Tawadkar	Bharatiya Janata Party	8636	427	9063.0	31.11	4	2	75	Married	0	MALE	Post Graduate	1

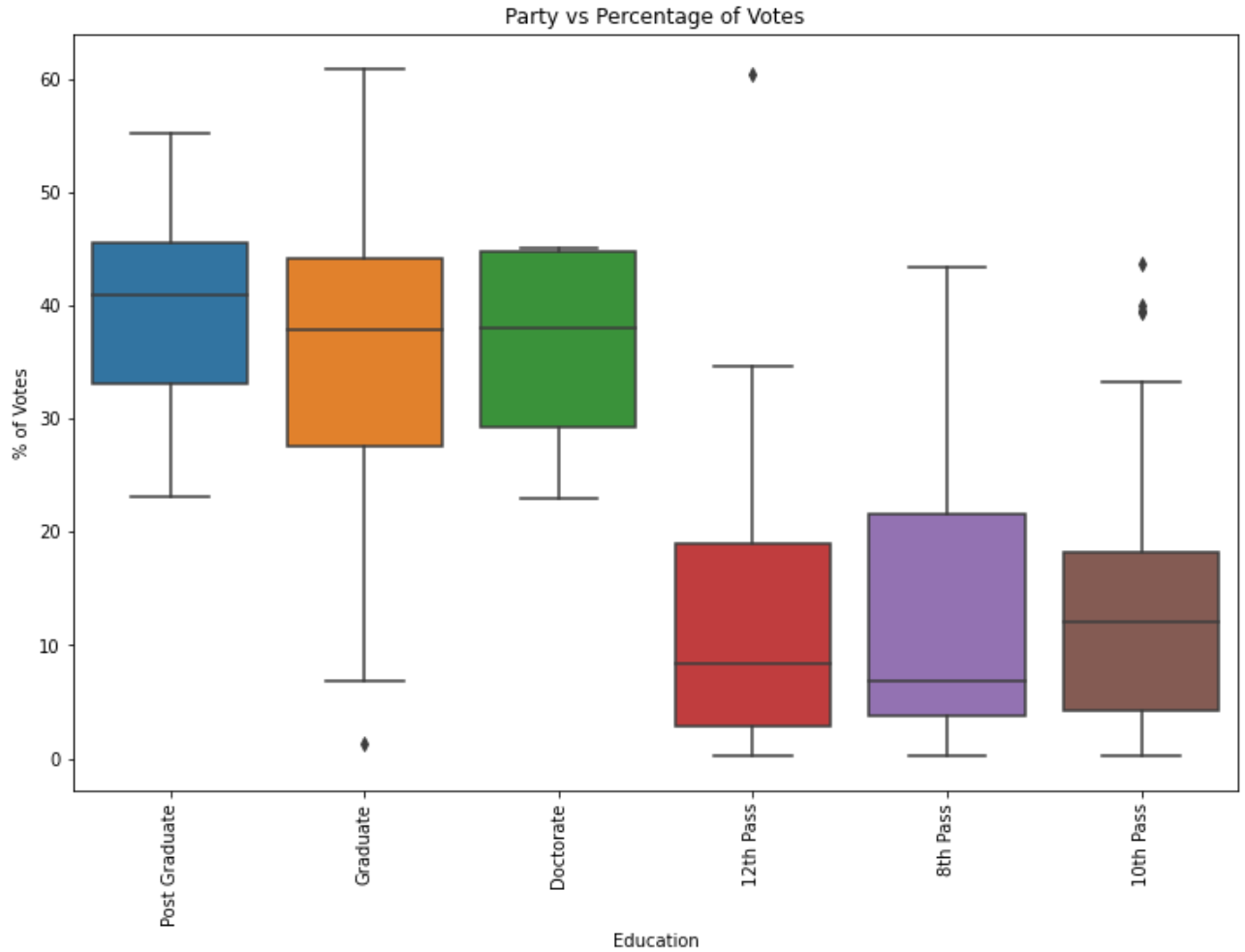
Data Analytics for the data






Age v/s % of Votes
% of Votes
% of Votes
Age

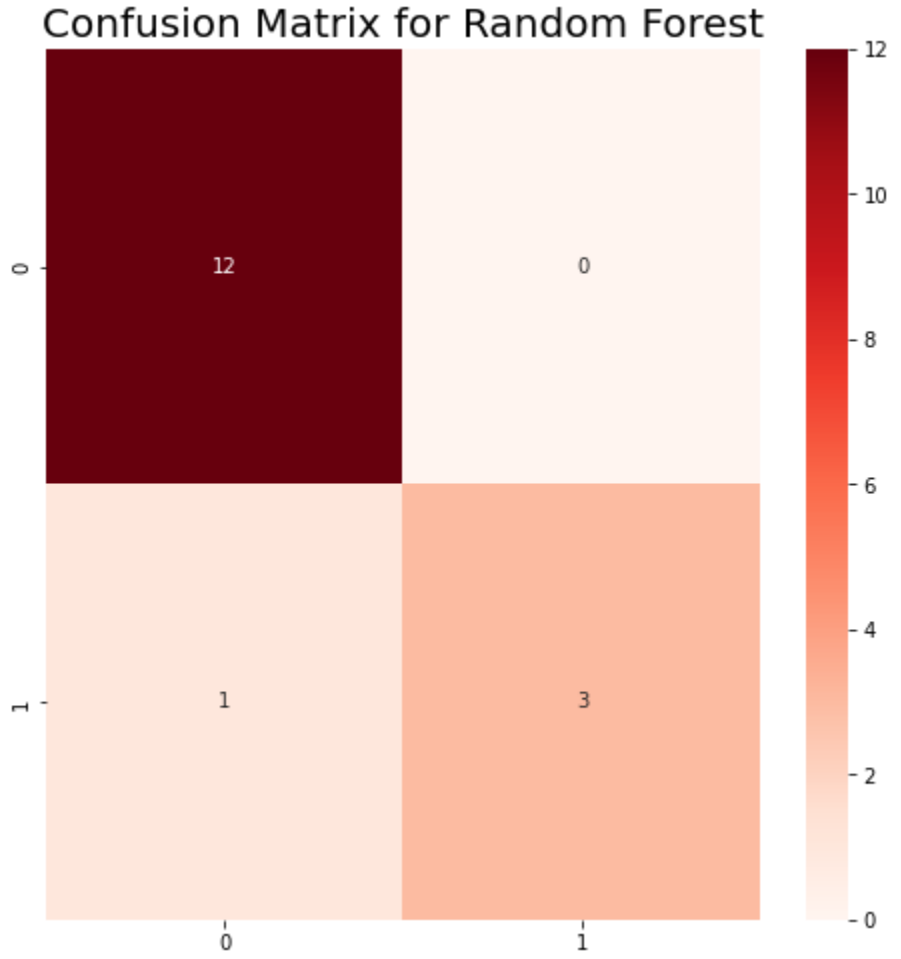

Gender vs Percentage of Votes
% of Votes
Gender


Party vs Percentage of Votes
% of Votes
Post Graduate
Graduate
Doctorate
12th Pass
8th Pass
10th Pass
Education

- To make the data ready (data preprocessing) for training for the model, we performed one hot encoding, because of the categorical values present in the data.
- Machine Learning Algorithms used:
  - Random Forest Classifier
  - Decision Tree
  - KNeighbours Classifier (KNN)

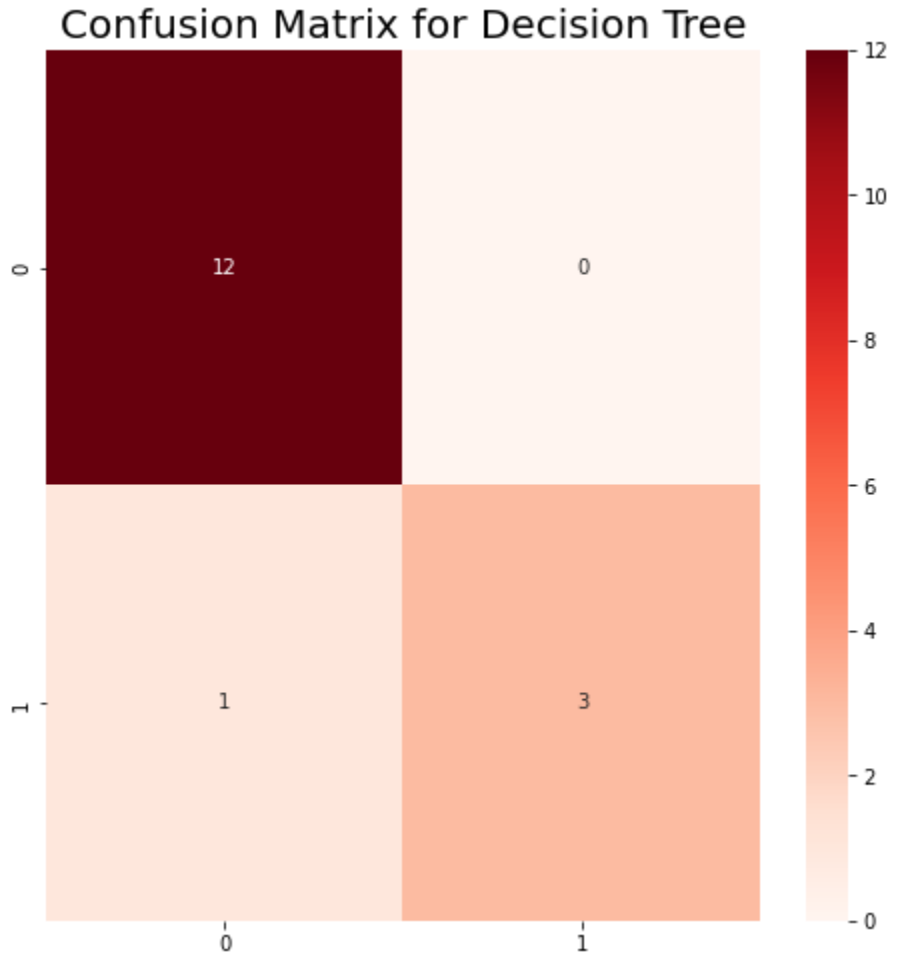
Random Forest Classifier

```
Training Accuracy : 1.0
Testing Accuracy : 0.9375
```



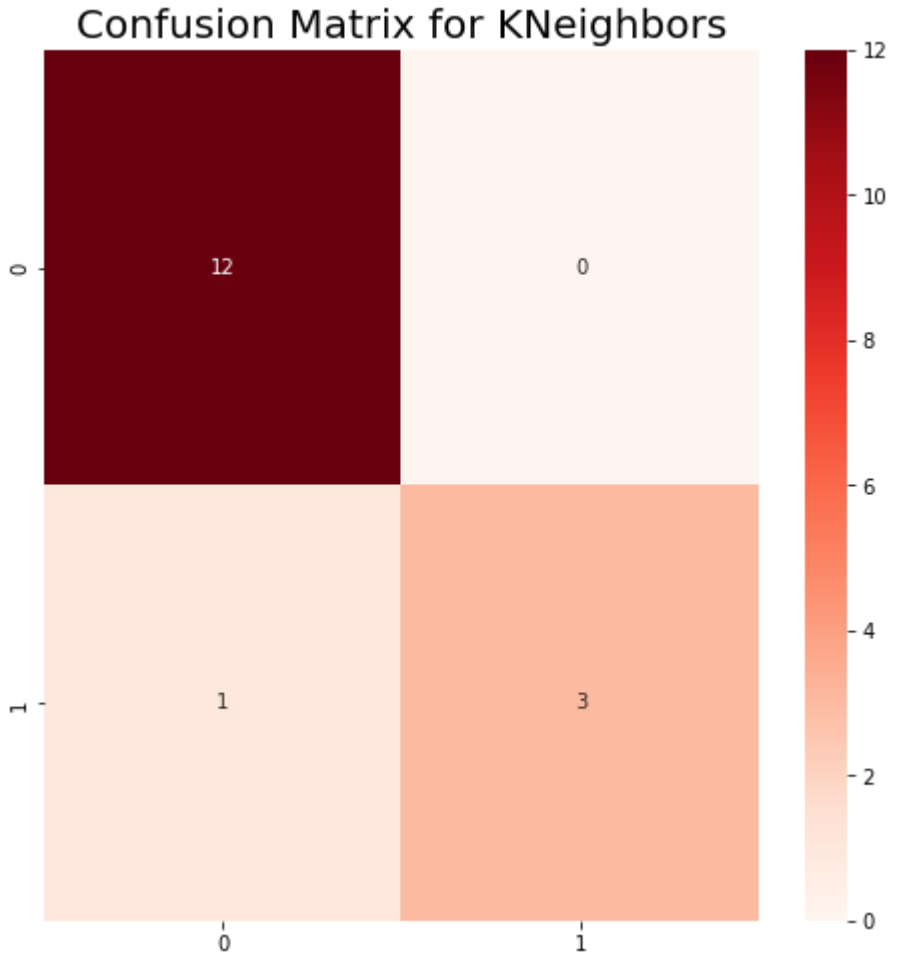
Decision Tree Classifier

```
Training Accuracy : 0.9930555555555556
Testing Accuracy : 0.9375
```



Knearest Neighbours Classifier

```
Training Accuracy : 0.9618333355555556
Testing Accuracy : 0.9375
```



6. Results and discussions

- The final outcome depending on the feature is whether the candidate can Win or Lose the election, which shows their eligibility to stand for election.
- **Future Scope:**

  - The model can be further developed in order to contest and show the probability of two politicians standing for election whether they win or lose.
  - A front-end system can be developed
  - Collecting and using real-world dataset

Thank You.