

```
In [1]: import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import plotly.express as px
import plotly.offline as py
```

```
import dataset
```

```
In [2]: data=pd.read_csv("C:\Dataset\Lok Sabha Election 2024\election_results_2024.csv")
```

```
In [3]: data
```

Out[3]:	Constituency	Const. No.	Leading Candidate	Leading Party	Trailing Candidate	Trailing Party	Margin	Status
0	AJMER	13	BHAGRATH CHOUDHARY	Bharatiya Janata Party	RAMCHANDRA CHOUDHARY	Indian National Congress	329991	Result Declared
1	ALWAR	8	BHUPENDER YADAV	Bharatiya Janata Party	LALIT YADAV	Indian National Congress	48282	Result Declared
2	AMBALA	1	VARUN CHAUDHRY	Indian National Congress	BANTO KATARIA	Bharatiya Janata Party	49036	Result Declared
3	ANANTNAG-RAJOURI	3	MEAN ALTAIF AHMAD	Jammu & Kashmir National Conference	MEHBOOBA MUFTI	Jammu & Kashmir Peoples Democratic Party	281794	Result Declared
4	ARAKKONAM	7	S JAGATHRATCHAKAN	Dravida Munnetra Kazhagam	L VIJAYAN	All India Anna Dravida Munnetra Kazhagam	306569	Result Declared
...
538	Wardha	8	AMAR SHARADRAO KALE	Nationalist Congress Party – Sharadchandra Pawar	RAMDAS CHANDRABHAN TADAS	Bharatiya Janata Party	81648	Result Declared
539	Wayanad	4	RAHUL GANDHI	Indian National Congress	ANNIE RAJA	Communist Party of India	364422	Result Declared
540	West Delhi	6	KAMALJEET SEHWRAWAT	Bharatiya Janata Party	MAHABAL MISHRA	Aam Aadmi Party	199013	Result Declared
541	Yamuna-Washim	14	SANJAY UTTAMRAO DESHMUKH	Shiv Sena (Uddhav Balasaheb Thackeray)	RAJSHRUTI HEMANT PATIL (MAHALLE)	Shiv Sena	94473	Result Declared
542	Zafarabad	5	SURESH KUMAR SHETKAR	Indian National Congress	B. B. PATIL	Bharatiya Janata Party	46188	Result Declared

543 rows × 8 columns

```
In [4]: data.head(10)
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Out[4]:	Constituency	Const. No.	Leading Candidate	Leading Party	Trailing Candidate	Trailing Party	Margin	Status
0	AJMER	13	BHAGRATH CHOUDHARY	Bharatiya Janata Party	RAMCHANDRA CHOUDHARY	Indian National Congress	329991	Result Declared
1	ALWAR	8	BHUPENDER YADAV	Bharatiya Janata Party	LALIT YADAV	Indian National Congress	48282	Result Declared
2	AMBALA	1	VARUN CHAUDHRY	Indian National Congress	BANTO KATARIA	Bharatiya Janata Party	49036	Result Declared
3	ANANTNAG-RAJOURI	3	MEAN ALTAIF AHMAD	Jammu & Kashmir National Conference	MEHBOOBA MUFTI	Jammu & Kashmir Peoples Democratic Party	281794	Result Declared
4	ARAKKONAM	7	S JAGATHRATCHAKAN	Dravida Munnetra Kazhagam	L VIJAYAN	All India Anna Dravida Munnetra Kazhagam	306569	Result Declared
5	ARANI	12	THARANINVENTHAN M S	Dravida Munnetra Kazhagam	GAJENDRAN G.V	All India Anna Dravida Munnetra Kazhagam	208766	Result Declared
6	Adilabad	1	GODAM NAGESH	Bharatiya Janata Party	ATHRAM SUGUNA	Indian National Congress	90652	Result Declared
7	Agra	18	PROF S P SINGH BAGHEL	Bharatiya Janata Party	SURESH CHAND KARDAM	Samajwadi Party	271294	Result Declared
8	Ahmedabad East	7	HASMUKHBHAI PATEL (CHINN)	Bharatiya Janata Party	HIMMATSINGH PRAHLADSHIN PATEL	Indian National Congress	461755	Result Declared
9	Ahmedabad West	8	DINESHBHAI MAKWANA (ADVOICATE)	Bharatiya Janata Party	BHARAT YOGENDRA MAKWANA	Indian National Congress	286437	Result Declared

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In [5]: data.tail(10)
```

Out[5]:	Constituency	Const. No.	Leading Candidate	Leading Party	Trailing Candidate	Trailing Party	Margin	Status
533	Varanasi	77	NARENDRA MODI	Bharatiya Janata Party	AJAY RAI	Indian National Congress	152513	Result Declared
534	Vijayawada	12	KESINENI SWANATH (CHINN)	Telugu Desam	KESINENI SRINIVAS (NANE)	Yuvajana Sramika Rythu Congress Party	282085	Result Declared
535	Vishakhapatnam	4	SRIBHARAT KALISETTI	Telugu Desam	JHANSI LAKSHME BOTCHA	Yuvajana Sramika Rythu Congress Party	504247	Result Declared
536	Vizianagaram	3	APPRANADU KALISETTI	Telugu Desam	BELLANA CHANDRASEKHAR	Yuvajana Sramika Rythu Congress Party	249351	Result Declared
537	Warangal	15	KADIYAM KAVYA	Indian National Congress	AROORI RAMESH	Bharatiya Janata Party	220339	Result Declared
538	Wardha	8	AMAR SHARADRAO KALE	Nationalist Congress Party – Sharadchandra Pawar	RAMDAS CHANDRABHAN TADAS	Bharatiya Janata Party	81648	Result Declared
539	Wayanad	4	RAHUL GANDHI	Indian National Congress	ANNIE RAJA	Communist Party of India	364422	Result Declared
540	West Delhi	6	KAMALJEET SEHWRAWAT	Bharatiya Janata Party	MAHABAL MISHRA	Aam Aadmi Party	199013	Result Declared
541	Yamuna-Washim	14	SANJAY UTTAMRAO DESHMUKH	Shiv Sena (Uddhav Balasaheb Thackeray)	RAJSHRUTI HEMANT PATIL (MAHALLE)	Shiv Sena	94473	Result Declared
542	Zafarabad	5	SURESH KUMAR SHETKAR	Indian National Congress	B. B. PATIL	Bharatiya Janata Party	46188	Result Declared

```
In [6]: data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 543 entries, 0 to 542
Data columns (total 8 columns):
 #   Column                Non-Null Count  Dtype
---  --
 0   Constituency          543 non-null    object
 1   Const. No.            543 non-null    int64
 2   Leading Candidate     543 non-null    object
 3   Leading Party         543 non-null    object
 4   Trailing Candidate    542 non-null    object
 5   Trailing Party        542 non-null    object
 6   Margin               543 non-null    object
 7   Status               543 non-null    object
dtypes: int64(1), object(7)
memory usage: 34.1+ KB
```

```
In [7]: data.describe()
```

Out[7]:	Const. No.
count	543.000000
mean	18.478637
std	16.827640
min	1.000000
25%	6.000000
50%	14.000000
75%	25.000000
max	80.000000

Data cleaning

```
In [8]: data.dropna()
```

Out[8]:	Constituency	Const. No.	Leading Candidate	Leading Party	Trailing Candidate	Trailing Party	Margin	Status
0	AJMER	13	BHAGRATH CHOUDHARY	Bharatiya Janata Party	RAMCHANDRA CHOUDHARY	Indian National Congress	329991	Result Declared
1	ALWAR	8	BHUPENDER YADAV	Bharatiya Janata Party	LALIT YADAV	Indian National Congress	48282	Result Declared
2	AMBALA	1	VARUN CHAUDHRY	Indian National Congress	BANTO KATARIA	Bharatiya Janata Party	49036	Result Declared
3	ANANTNAG-RAJOURI	3	MEAN ALTAIF AHMAD	Jammu & Kashmir National Conference	MEHBOOBA MUFTI	Jammu & Kashmir Peoples Democratic Party	281794	Result Declared
4	ARAKKONAM	7	S JAGATHRATCHAKAN	Dravida Munnetra Kazhagam	L VIJAYAN	All India Anna Dravida Munnetra Kazhagam	306569	Result Declared
...
538	Wardha	8	AMAR SHARADRAO KALE	Nationalist Congress Party – Sharadchandra Pawar	RAMDAS CHANDRABHAN TADAS	Bharatiya Janata Party	81648	Result Declared
539	Wayanad	4	RAHUL GANDHI	Indian National Congress	ANNIE RAJA	Communist Party of India	364422	Result Declared
540	West Delhi	6	KAMALJEET SEHWRAWAT	Bharatiya Janata Party	MAHABAL MISHRA	Aam Aadmi Party	199013	Result Declared
541	Yamuna-Washim	14	SANJAY UTTAMRAO DESHMUKH	Shiv Sena (Uddhav Balasaheb Thackeray)	RAJSHRUTI HEMANT PATIL (MAHALLE)	Shiv Sena	94473	Result Declared
542	Zafarabad	5	SURESH KUMAR SHETKAR	Indian National Congress	B. B. PATIL	Bharatiya Janata Party	46188	Result Declared

542 rows × 8 columns

```
In [9]: data['Margin']
```

Out[9]:	Margin
0	329991
1	48282
2	49036
3	281794
4	306569
...	...
539	364422
540	199013
541	94473
542	46188

Name: Margin, Length: 543, dtype: object

Seat Won by each Party

```
In [10]: seats_won = data['Leading Party'].value_counts()
print(seats_won)
```

Leading Party	249
Bharatiya Janata Party	99
Indian National Congress	37
Samajwadi Party	28
All India Trinamool Congress	22
Dravida Munnetra Kazhagam	22
Telugu Desam	21
Janata Dal (United)	12
Shiv Sena (Uddhav Balasaheb Thackeray)	9
Nationalist Congress Party – Sharadchandra Pawar	8
Shiv Sena	7
Independent	5
Lok Janshakti Party(Ram Vilas)	5
Communist Party of India (Marxist)	4
Yuvajana Sramika Rythu Congress Party	4
Rashtriya Janata Dal	4
Indian Union Muslim League	3
Jharkhand Mukti Morcha	3
Aam Aadmi Party	3
Bharatiya Lok Dal	2
Communist Party of India (Marxist-Leninist) (Liberation)	2
Communist Party of India	2
Jammu & Kashmir National Conference	2
Janasena Party	2
Janata Dal (Secular)	2
Viduthalaai Chiruthaigal Katch	2
Hindustani Awam Morcha (Secular)	1
Sikkim Krantikari Morcha	1
Voice of the People Party	1
Nationalist Congress Party	1
Aazad Samaj Party (Kashmi Ram)	1
Rashtriya Loktantrik Party	1
Shironami Akali Dal	1
Apna Dal (Soneiyali)	1
AJSD Party	1
Zoran People's Movement	1
Kerala Congress	1
Revolutionary Socialist Party	1
Ason Gana Parishad	1
United People's Party	1
Bharat Adivasi Party	1
All India Majlis-E-Ittehadul Muslimeen	1
Nationalist Congress Party – Sharadchandra Pawar	1
Name: count, dtype: int64	1

Party with highest and lowest margin of victory

```
In [11]: party_votes = data.groupby('Leading Party')['Margin'].sum().sort_values(ascending=False)
data['Margin'] = data.apply(lambda x: party_votes[x['Leading Party']], axis=1)
print(data['Margin'])
```

Leading Party	46981536.0
Bharatiya Janata Party	13805922.0
Indian National Congress	5851581.0
Dravida Munnetra Kazhagam	4928993.0
Telugu Desam	3668927.0
Janata Dal (United)	2895950.0
Shiv Sena (Uddhav Balasaheb Thackeray)	1386413.0
Communist Party of India (Marxist)	1925430.0
Lok Janshakti Party(Ram Vilas)	746237.0
Aazad Samaj Party (Kashmi Ram)	728093.0
Nationalist Congress Party – Sharadchandra Pawar	718571.0
Indian Union Muslim League	707669.0
Shiv Sena	706772.0
Independent	629380.0
Jammu & Kashmir National Conference	470210.0
Janasena Party	452670.0
Voice of the People Party	371910.0
Jharkhand Mukti Morcha	365135.0
Janata Dal (Secular)	365880.0
All India Majlis-E-Ittehadul Muslimeen	338087.0
Rashtriya Janata Dal	335987.0
Communist Party of India	334885.0
Marumajarchi Dravida Munnetra Kazhagam	333994.0
Bharat Adivasi Party	247854.0
Aam Aadmi Party	227517.0
Ason Gana Parishad	222351.0
Yuvajana Sramika Rythu Congress Party	203915.0
Rashtriya Lok Dal	196957.0
Viduthalaai Chiruthaigal Katch	174297.0
Communist Party of India (Marxist-Leninist) (Liberation)	165668.0
Aazad Samaj Party (Kashmi Ram)	151473.0
Revolutionary Socialist Party	150760.0
Hindustani Awam Morcha (Secular)	101812.0
Nationalist Congress Party	97206.0
Nationalist Congress Party	82784.0
AJSD Party	88880.0
Sikkim Krantikari Morcha	88880.0
Zoran People's Movement	68288.0
United People's Party	61850.0
Shironami Akali Dal	49655.0
Rashtriya Loktantrik Party	42225.0
Apna Dal (Soneiyali)	37810.0
Name: Margin, dtype: float64	1

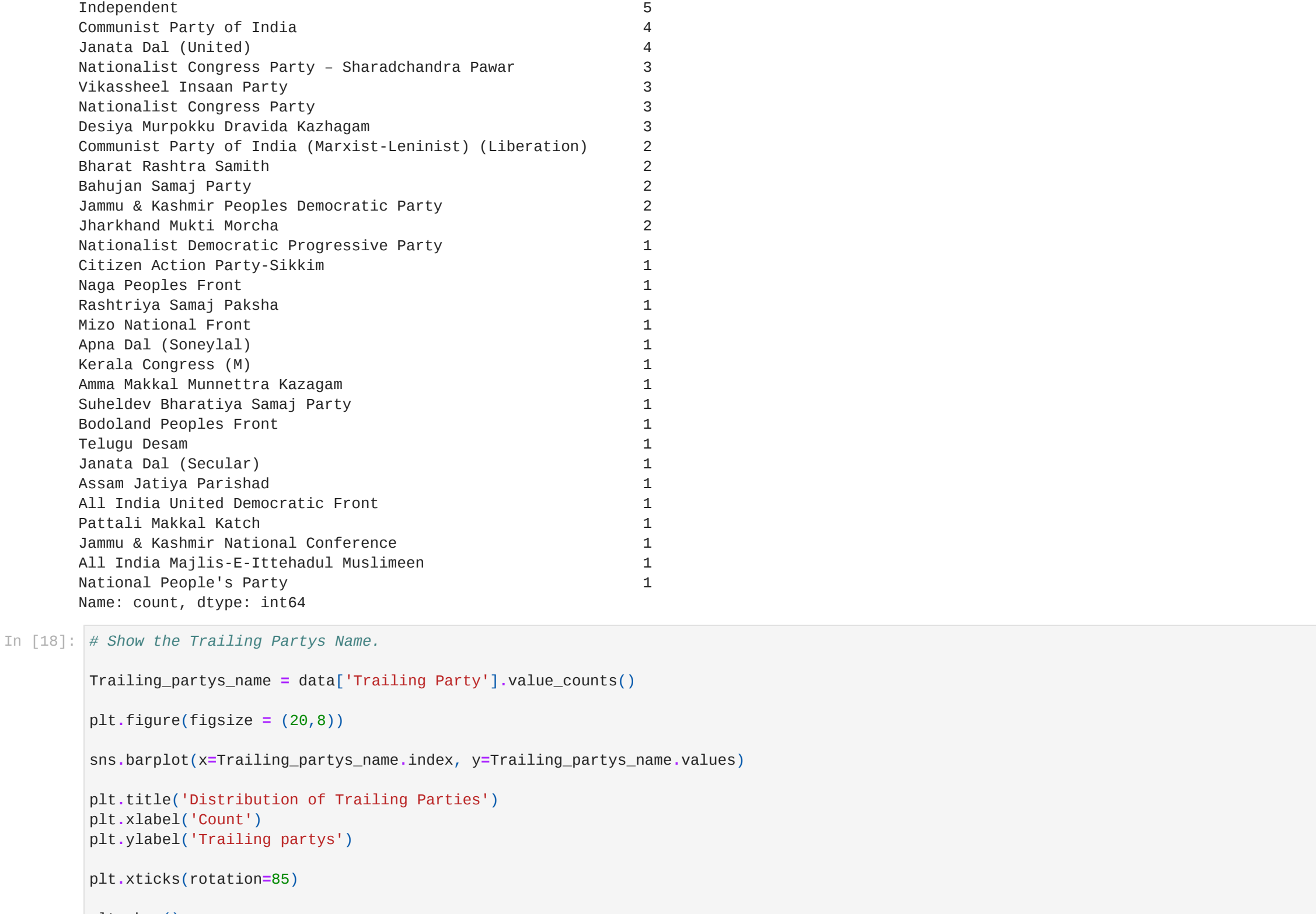
```
In [12]: # Party with highest and lowest margin of victory
highest_margin = data.loc[data['Margin'].idxmax()]
lowest_margin = data.loc[data['Margin'].idxmin()]
print(highest_margin)
```

Constituency	INORE
Const. No.	26
Leading Candidate	SHANKAR LALWANI
Leading Party	Bharatiya Janata Party
Trailing Candidate	SANJAY S/O LAKSHMAN SOLANKI
Trailing Party	Bahujan Samaj Party
Margin	Result Declared
Status	Result Declared
Name: 221, dtype: object	1

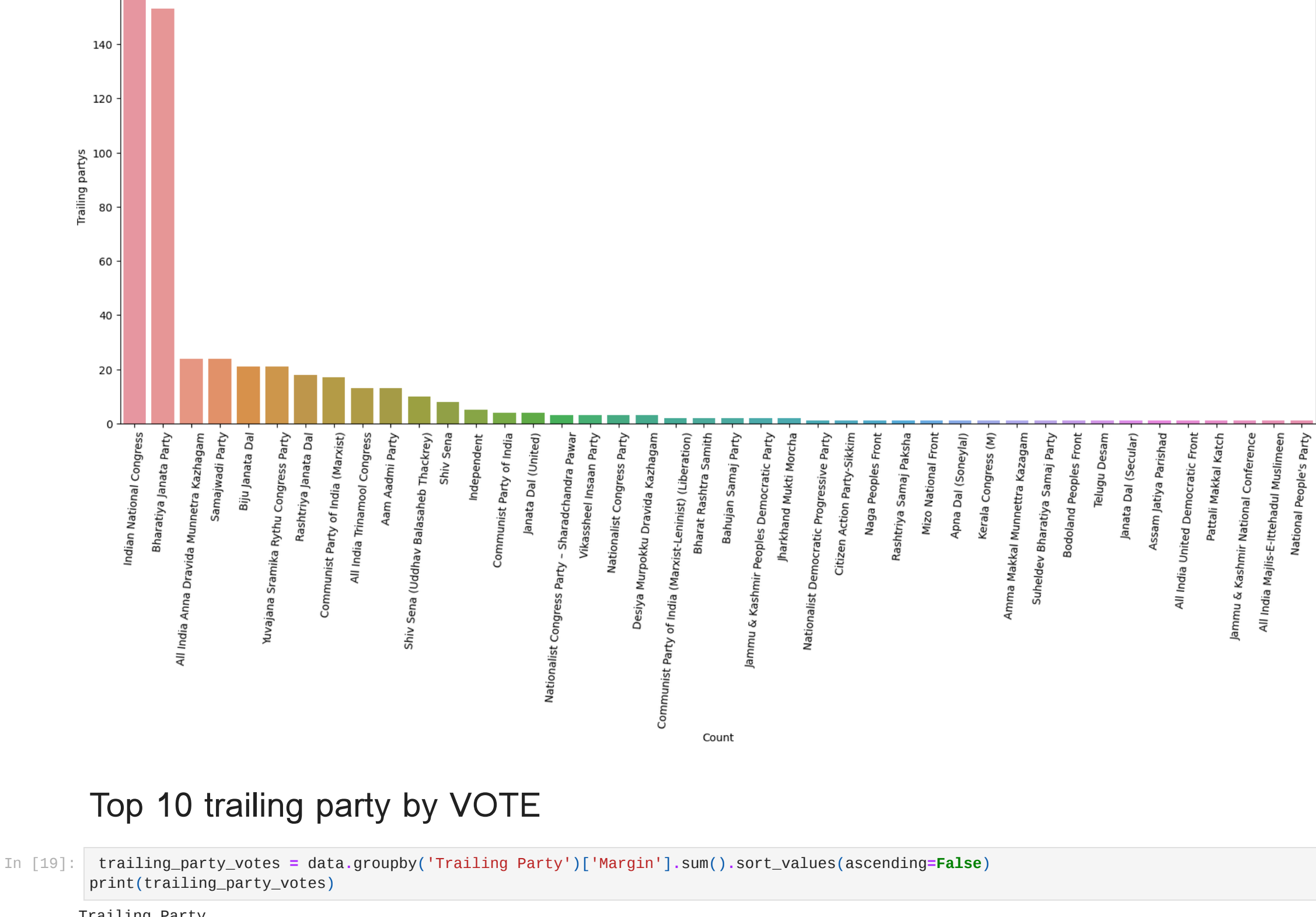
```
In [13]: print(lowest_margin)
```

Constituency	Mumbai North West
Const. No.	1
Leading Candidate	RAVZNDRA DATTARAM WALIKAR
Leading Party	Shiv Sena
Trailing Candidate	ANOL GAJANAN KIRTIKAR
Trailing Party	Shiv Sena (Uddhav Balasaheb Thackeray)
Margin	461.0
Status	Result Declared
Name: 357, dtype: object	1

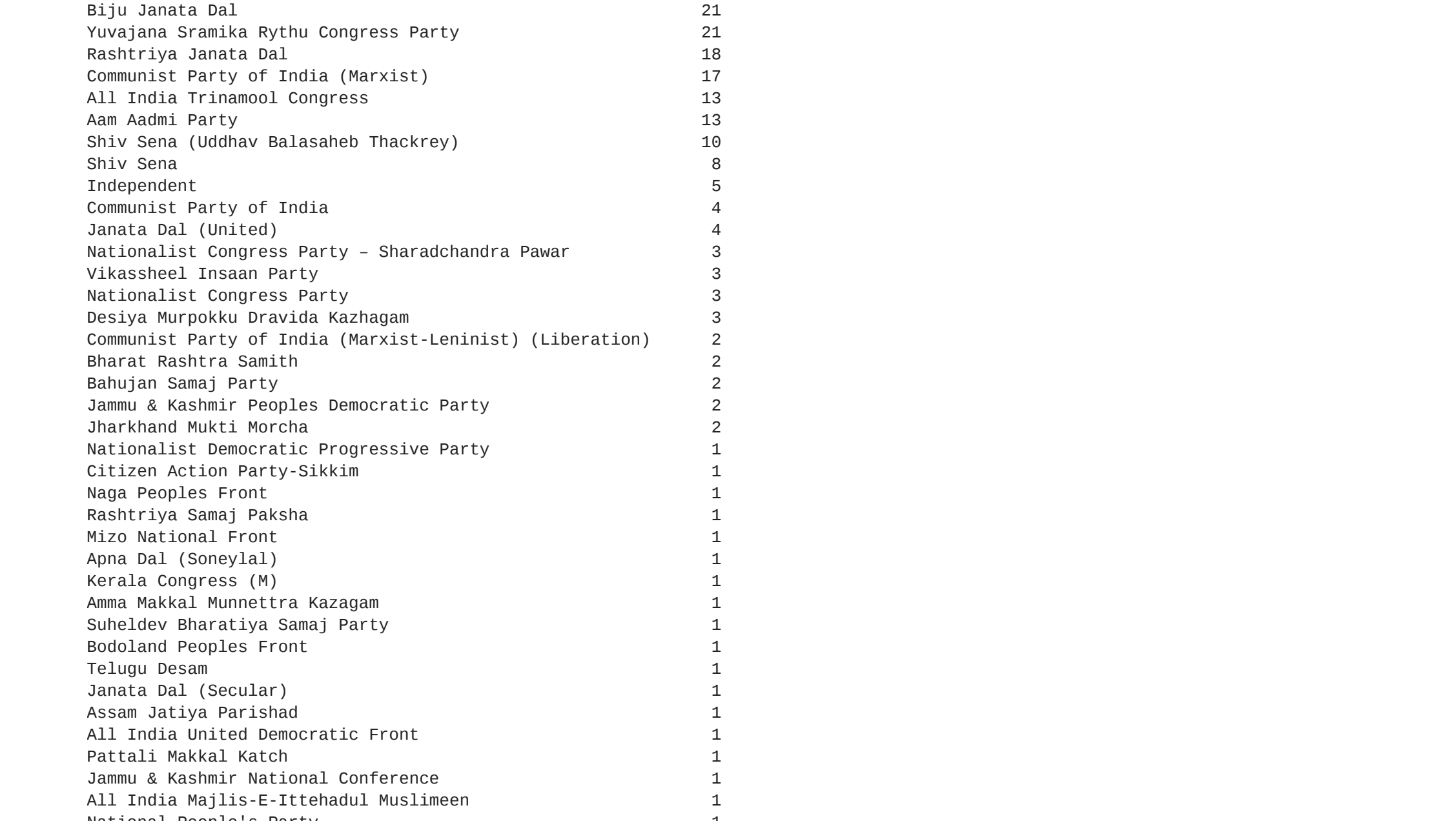
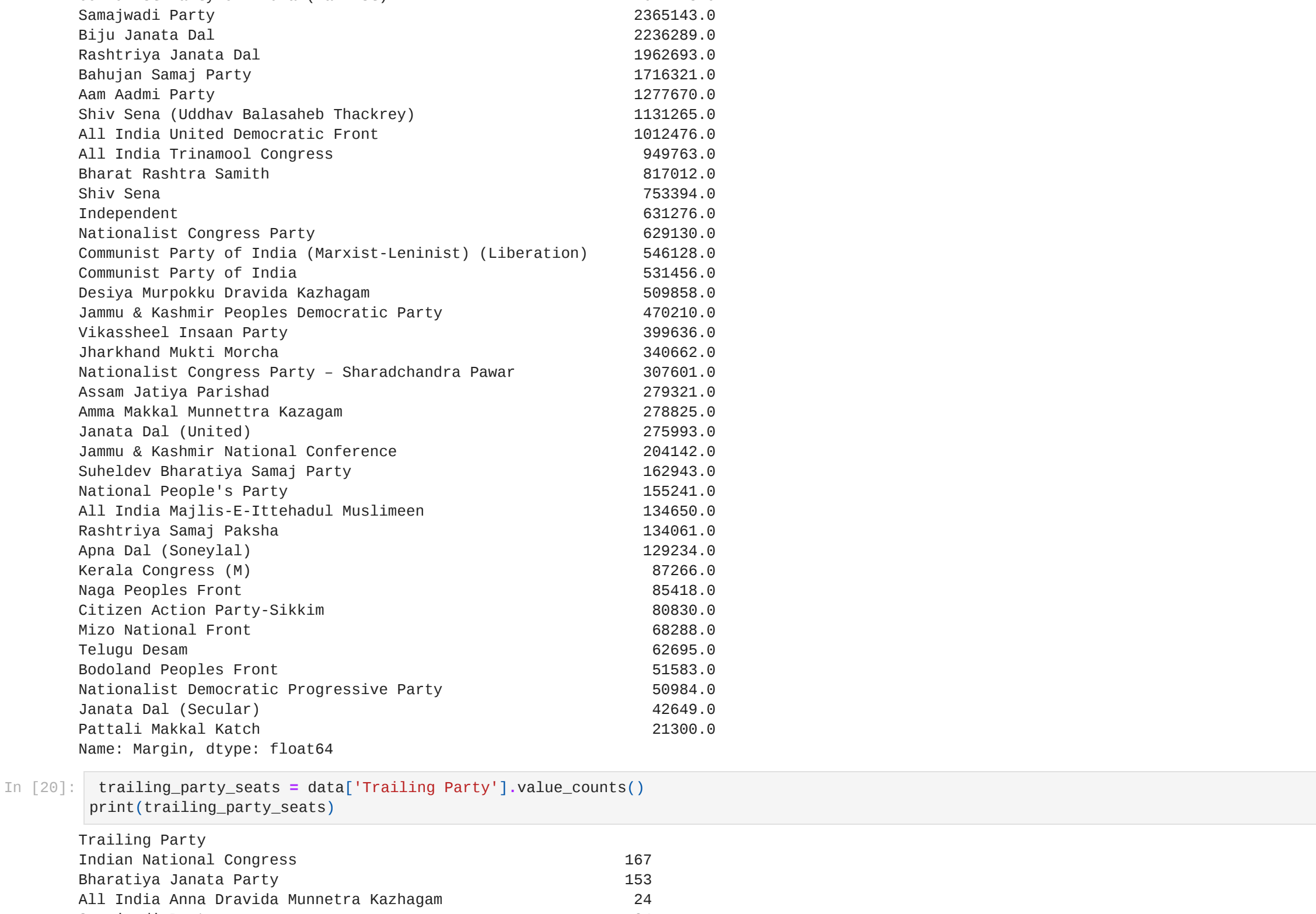
Plot number of seats Won by each Party



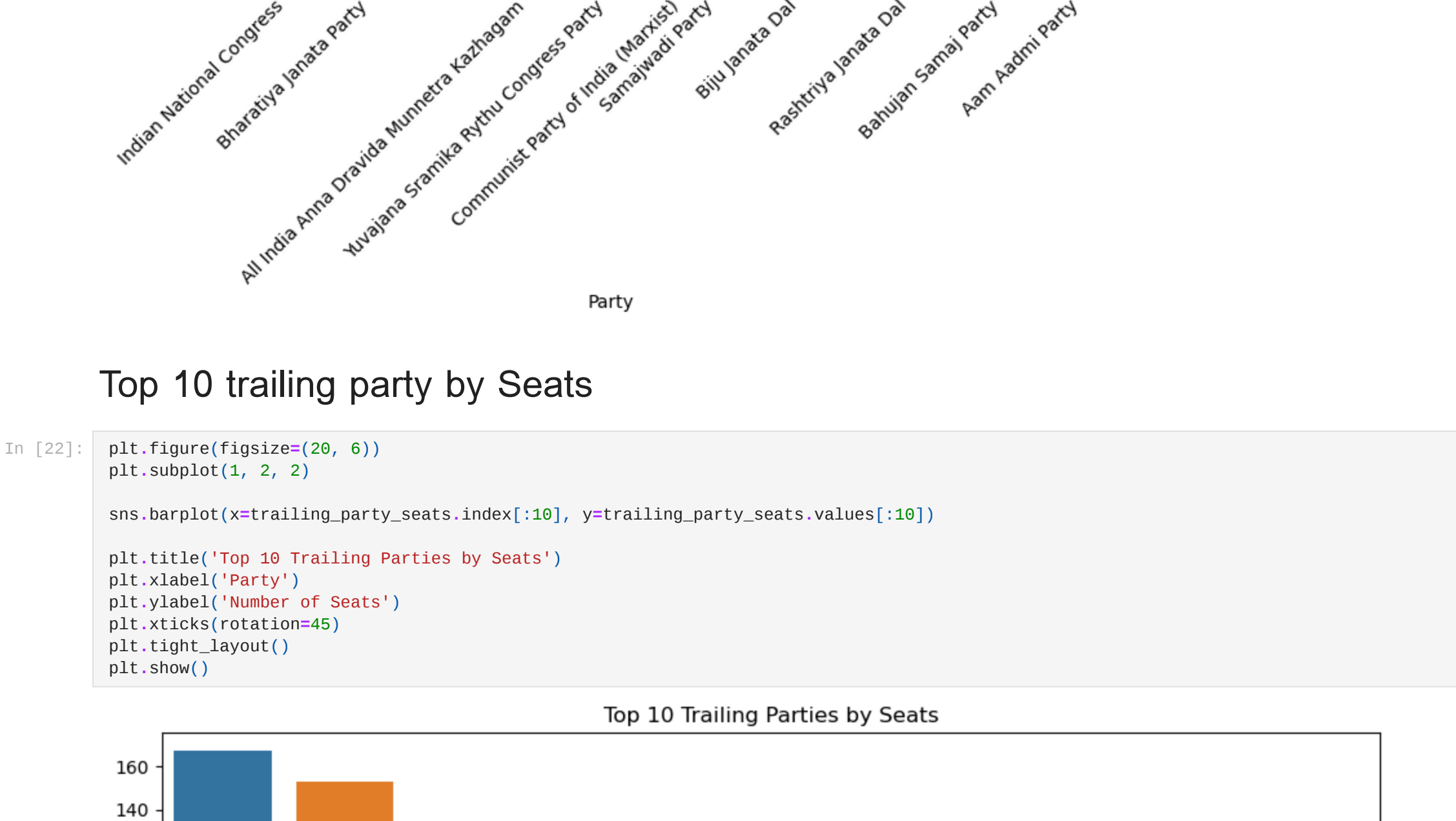
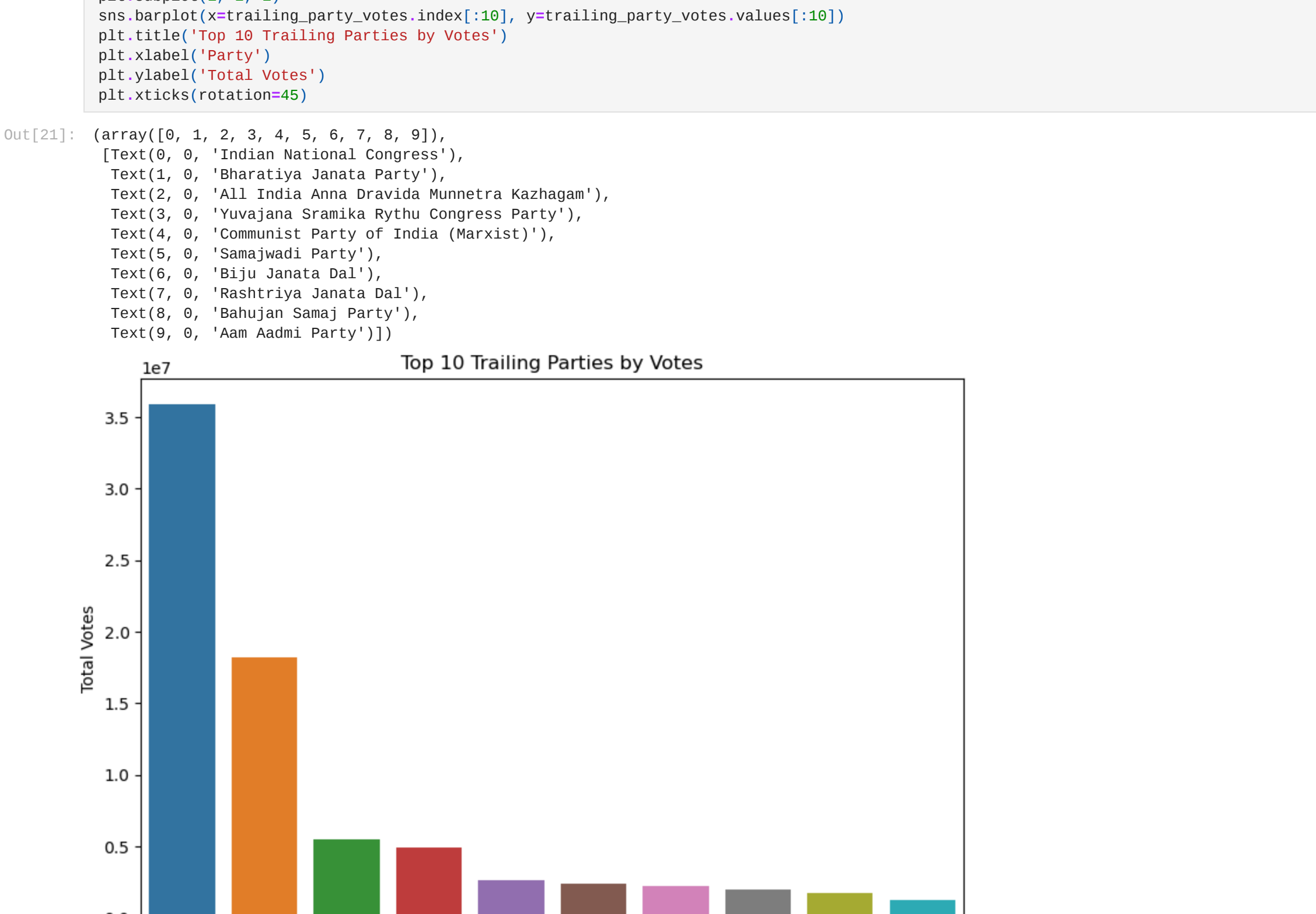
Plot number of seats Won by each Party through Pie chart



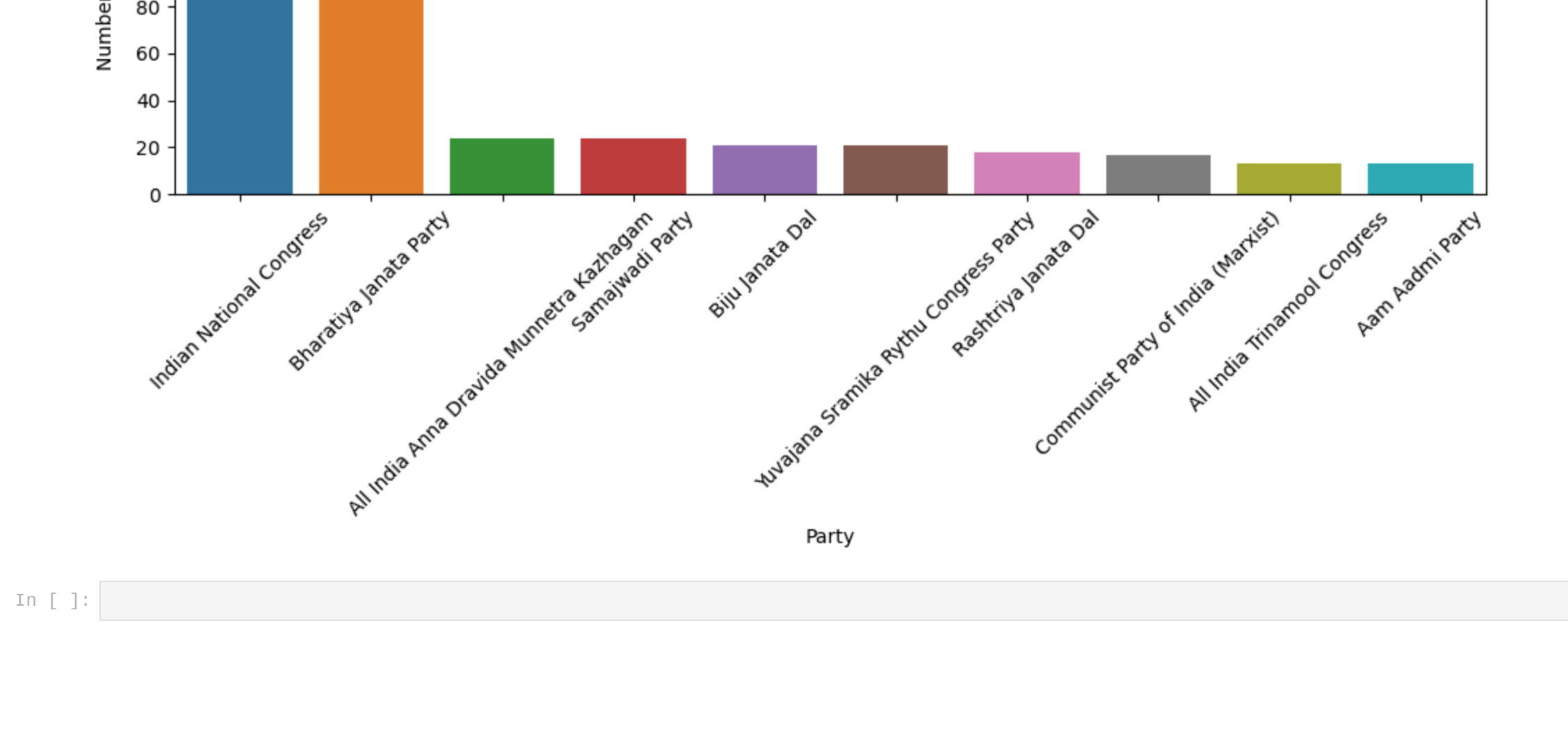
Show the Margin



Top 10 trailing party by VOTE



Top 10 trailing party by Seats



Top 10 trailing party by Seats

Top 10 trailing party by Seats

Top 10 trailing party by Seats

Top 10 trailing party by Seats

Top 10 trailing party by Seats

Top 10 trailing party by Seats

Top 10 trailing party by Seats

Top 10 trailing party by Seats

Top 10 trailing party by Seats

Top 10 trailing party by Seats

