MAHARASTRA ELECTION 2019 DATA ANALYSIS

Importing all required libraries

```
import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
import geopandas as gd
from shapely.geometry import Point
from warnings import filterwarnings
filterwarnings("ignore")
```

Reading data from the file

```
df = pd.read_csv("maharastra_AC_2019.csv")
```

Checking for all unwanted columns from the dataset

```
df.head()

   Unnamed: 0        State  AC_No         AC Type  \
0           0  Maharashtra      1  Akkalkuwa   ST   
1           1  Maharashtra      2    Shahada   ST   
2           2  Maharashtra      3  Nandurbar   ST   
3           3  Maharashtra      4    Nawapur   ST   
4           4  Maharashtra      5      Sakri   ST   

                                   MLA Total Electors  
Turnout  \
0             Adv. K. C. Padavi ( INC )       2,74,595  1,95,771 
( 73.06 %)   
1          Rajesh Udesing Padvi ( BJP )       3,16,890  2,06,944 
( 66.39 %)   
2   Vijaykumar Krushnarao Gavit ( BJP )       3,36,325  1,84,968 
( 56.04 %)   
3   Naik Shirishkumar Surupsing ( INC )       2,87,031  2,12,713 
( 75.83 %)   
4       Manjula Tulshiram Gavit ( IND )       3,39,027  2,03,951 
( 61.38 %)   

      Polling Date    Counting Date  ...                 Male  \
0  21 October 2019  24 October 2019  ...  1,22,375 ( 50.9 %)   
1  21 October 2019  24 October 2019  ...  1,42,465 ( 51.2 %)   
2  21 October 2019  24 October 2019  ...  1,57,219 ( 51.1 %)   
3  21 October 2019  24 October 2019  ...  1,32,891 ( 49.9 %)   
4  21 October 2019  24 October 2019  ...  1,59,112 ( 52.1 %)   
```

```
               Female       other  \
0  1,18,199 ( 49.1 %)  0 ( 0.0 %)
1  1,35,659 ( 48.8 %)  0 ( 0.0 %)
2  1,50,314 ( 48.9 %)  0 ( 0.0 %)
3  1,33,559 ( 50.1 %)  0 ( 0.0 %)
4  1,46,452 ( 47.9 %)  0 ( 0.0 %)

                                          Candidates  \
0  [['Adv. K. C. Padavi', 'INC', 82770, 42.3, '-'...
1  [['Rajesh Udesing Padvi', 'BJP', 94931, 45.9, ...
2  [['Vijaykumar Krushnarao Gavit', 'BJP', 121605...
3  [['Naik Shirishkumar Surupsing', 'INC', 74652,...
4  [['Manjula Tulshiram Gavit', 'IND', 76166, 37....

                                                 Age  \
0  [['Male', '20,151 ( 8.4 %)', '32,863 ( 13.7 %)...
1  [['Male', '17,274 ( 6.2 %)', '34,194 ( 12.3 %)...
2  [['Male', '19,283 ( 6.3 %)', '35,911 ( 11.7 %)...
3  [['Male', '16,524 ( 6.2 %)', '30,165 ( 11.3 %)...
4  [['Male', '17,087 ( 5.6 %)', '36,546 ( 12.0 %)...

                                           Age-young     AC Name  \
0  [[18, 842, 641, 0, '1,483 ( 0.6 %)'], [19, 187...  Akkalkuwa
1  [[18, 498, 323, 0, '821 ( 0.3 %)'], [19, 1714,...    Shahada
2  [[18, 728, 414, 0, '1,142 ( 0.4 %)'], [19, 239...  Nandurbar
3  [[18, 509, 386, 0, '895 ( 0.3 %)'], [19, 1852,...    Nawapur
4  [[18, 965, 497, 0, '1,462 ( 0.5 %)'], [19, 158...      Sakri

                      Party                      Region   District
0  Indian National Congress  North Maharashtra - Nashik  Nandurbar
1     Bharatiya Janta Party  North Maharashtra - Nashik  Nandurbar
2     Bharatiya Janta Party  North Maharashtra - Nashik  Nandurbar
3  Indian National Congress  North Maharashtra - Nashik  Nandurbar
4               Independent  North Maharashtra - Nashik      Dhule

[5 rows x 21 columns]
```

```
df.tail()
```

```
     Unnamed: 0        State  AC_No                          AC Type  \
283         283  Maharashtra    284                   Shirala  GEN
284         284  Maharashtra    285            Palus-Kadegaon  GEN
285         285  Maharashtra    286                  Khanapur  GEN
286         286  Maharashtra    287  Tasgaon-Kavathe Mahankal  GEN
287         287  Maharashtra    288                      Jath  GEN

                                      MLA Total Electors
Turnout  \
283     Mansing Fattesingrao Naik ( NCP )       2,91,938  2,27,861
```

```
( 78.54 %)
284    Kadam Vishwajeet Patangrao ( INC )       2,75,988  1,85,886
( 74.83 %)
285                Anilbhau Babar ( SHS )       3,21,932  2,13,943
( 67.37 %)
286  Sumanvahini R.R. (Aba) Patil ( NCP )       2,94,333  1,99,528
( 68.38 %)
287   Vikramsinh Balasaheb Sawant ( INC )       2,70,763  1,74,339
( 64.79 %)

        Polling Date    Counting Date  ...                Male  \
283  21 October 2019  24 October 2019  ...  1,43,617 ( 52.2 %)
284  21 October 2019  24 October 2019  ...  1,33,905 ( 51.4 %)
285  21 October 2019  24 October 2019  ...  1,55,345 ( 52.3 %)
286  21 October 2019  24 October 2019  ...  1,40,177 ( 52.5 %)
287  21 October 2019  24 October 2019  ...  1,27,241 ( 53.5 %)

                 Female       other  \
283  1,31,763 ( 47.8 %)  0 ( 0.0 %)
284  1,26,722 ( 48.6 %)  0 ( 0.0 %)
285  1,41,939 ( 47.7 %)  0 ( 0.0 %)
286  1,26,776 ( 47.5 %)  0 ( 0.0 %)
287  1,10,560 ( 46.5 %)  0 ( 0.0 %)

                                            Candidates  \
283  [['Mansing Fattesingrao Naik', 'NCP', 101933, ...
284  [['Kadam Vishwajeet Patangrao', 'INC', 171497,...
285  [['Anilbhau Babar', 'SHS', 116974, 54.7, '-'],...
286  [['Sumanvahini R.R. (Aba) Patil', 'NCP', 12837...
287  [['Vikramsinh Balasaheb Sawant', 'INC', 87184,...

                                                   Age  \
283  [['Male', '17,043 ( 6.2 %)', '31,169 ( 11.3 %)...
284  [['Male', '16,773 ( 6.4 %)', '28,672 ( 11.0 %)...
285  [['Male', '17,333 ( 5.8 %)', '32,810 ( 11.0 %)...
286  [['Male', '14,498 ( 5.4 %)', '28,503 ( 10.7 %)...
287  [['Male', '14,013 ( 5.9 %)', '28,593 ( 12.0 %)...

                                             Age-young  \
283  [[18, 650, 221, 0, '871 ( 0.3 %)'], [19, 1759,...
284  [[18, 759, 406, 0, '1,165 ( 0.4 %)'], [19, 196...
285  [[18, 703, 299, 0, '1,002 ( 0.3 %)'], [19, 192...
286  [[18, 392, 144, 0, '536 ( 0.2 %)'], [19, 1678,...
287  [[18, 303, 134, 0, '437 ( 0.2 %)'], [19, 1265,...

                       AC Name                        Party  \
283                    Shirala  Nationalist Congress Party
284             Palus-Kadegaon     Indian National Congress
285                   Khanapur                    Shiv Sena
286  Tasgaon-Kavathe Mahankal  Nationalist Congress Party
```

```
287                      Jath    Indian National Congress

                      Region District
283  West Maharashtra - Pune   Sangli
284  West Maharashtra - Pune   Sangli
285  West Maharashtra - Pune   Sangli
286  West Maharashtra - Pune   Sangli
287  West Maharashtra - Pune   Sangli

[5 rows x 21 columns]
```

From the above analysis we come to know that there are some columns which have unorganized data in the dataset. Columns such as **Unnamed :0 , State, Polling Date, Result Date, Counting Date, other, Candidates, Age, Age-young, AC Name** are unwanted as well as have the data in unorganized way.

So we will remove these columns using the **DROP** function. After then we will store the updated data in the another file in the **csv** format.

We will store the new data in new file using **to_csv** function.

```
df.columns

Index(['Unnamed: 0', 'State', 'AC_No', 'AC', 'Type', 'MLA', 'Total
Electors',
       'Turnout', 'Polling Date', 'Counting Date', 'Result Date',
'Male',
       'Female', 'other', 'Candidates', 'Age', 'Age-young', 'AC Name',
'Party',
       'Region', 'District'],
      dtype='object')

df = df.drop(['Unnamed: 0','State','Polling Date','Counting
Date','Result Date','other','Candidates', 'Age','Age-young','AC
Name'], axis=1)

file_path = 'maharastra_election_2019.csv'

# Save the DataFrame to a new CSV file
df.to_csv(file_path, index=False)

print(f"New data saved to {file_path}")

----------------------------------------------------------------------
-----
KeyError                                  Traceback (most recent call
last)
Cell In[77], line 1
----> 1 df = df.drop(['Unnamed: 0','State','Polling Date','Counting
Date','Result Date','other','Candidates', 'Age','Age-young','AC
Name'], axis=1)
      3 file_path = 'maharastra_election_2019.csv'
      5 df.to_csv(file_path, index=False)

File ~\AppData\Local\Programs\Python\Python311\Lib\site-packages\
pandas\core\frame.py:5347, in DataFrame.drop(self, labels, axis,
index, columns, level, inplace, errors)
   5199 def drop(
   5200     self,
   5201     labels: IndexLabel | None = None,
   (...)
   5208     errors: IgnoreRaise = "raise",
   5209 ) -> DataFrame | None:
   5210     """
   5211     Drop specified labels from rows or columns.
   5212 
   (...)
   5345             weight  1.0     0.8
   5346     """
-> 5347     return super().drop(
   5348         labels=labels,
   5349         axis=axis,
   5350         index=index,
   5351         columns=columns,
   5352         level=level,
   5353         inplace=inplace,
   5354         errors=errors,
   5355     )

File ~\AppData\Local\Programs\Python\Python311\Lib\site-packages\
pandas\core\generic.py:4711, in NDFrame.drop(self, labels, axis,
index, columns, level, inplace, errors)
   4709 for axis, labels in axes.items():
   4710     if labels is not None:
-> 4711         obj = obj._drop_axis(labels, axis, level=level,
errors=errors)
   4713 if inplace:
   4714     self._update_inplace(obj)

File ~\AppData\Local\Programs\Python\Python311\Lib\site-packages\
pandas\core\generic.py:4753, in NDFrame._drop_axis(self, labels, axis,
level, errors, only_slice)
   4751         new_axis = axis.drop(labels, level=level,
errors=errors)
   4752     else:
-> 4753         new_axis = axis.drop(labels, errors=errors)
   4754     indexer = axis.get_indexer(new_axis)
   4756 # Case for non-unique axis
   4757 else:
```

```
File ~\AppData\Local\Programs\Python\Python311\Lib\site-packages\
pandas\core\indexes\base.py:6992, in Index.drop(self, labels, errors)
   6990 if mask.any():
   6991     if errors != "ignore":
-> 6992         raise KeyError(f"{labels[mask].tolist()} not found in
axis")
   6993     indexer = indexer[~mask]
   6994 return self.delete(indexer)

KeyError: "['Unnamed: 0', 'State', 'Polling Date', 'Counting Date',
'Result Date', 'other', 'Candidates', 'Age', 'Age-young', 'AC Name']
not found in axis"
```

New updated data has been stored in the new file which is in the format of **csv**. The new file is name as **maharastra_election_2019**.

Now we will read and store this new file in the new variable. And then we will play all operation based on the new data file which is stored in the new variable.

```
df1 = pd.read_csv("maharastra_election_2019.csv")

df1.head()

   AC_No         AC Type                                  MLA Total
Electors  \
0      1  Akkalkuwa   ST            Adv. K. C. Padavi ( INC )
2,74,595
1      2    Shahada   ST         Rajesh Udesing Padvi ( BJP )
3,16,890
2      3  Nandurbar   ST  Vijaykumar Krushnarao Gavit ( BJP )
3,36,325
3      4    Nawapur   ST  Naik Shirishkumar Surupsing ( INC )
2,87,031
4      5      Sakri   ST      Manjula Tulshiram Gavit ( IND )
3,39,027

               Turnout                Male              Female  \
0  1,95,771 ( 73.06 %)  1,22,375 ( 50.9 %)  1,18,199 ( 49.1 %)
1  2,06,944 ( 66.39 %)  1,42,465 ( 51.2 %)  1,35,659 ( 48.8 %)
2  1,84,968 ( 56.04 %)  1,57,219 ( 51.1 %)  1,50,314 ( 48.9 %)
3  2,12,713 ( 75.83 %)  1,32,891 ( 49.9 %)  1,33,559 ( 50.1 %)
4  2,03,951 ( 61.38 %)  1,59,112 ( 52.1 %)  1,46,452 ( 47.9 %)

                      Party                      Region   District
0  Indian National Congress  North Maharashtra - Nashik  Nandurbar
1     Bharatiya Janta Party  North Maharashtra - Nashik  Nandurbar
2     Bharatiya Janta Party  North Maharashtra - Nashik  Nandurbar
3  Indian National Congress  North Maharashtra - Nashik  Nandurbar
4               Independent  North Maharashtra - Nashik      Dhule
```

```
df.tail()
```

```
     AC_No                        AC Type  \
283    284                   Shirala  GEN   
284    285            Palus-Kadegaon  GEN   
285    286                  Khanapur  GEN   
286    287  Tasgaon-Kavathe Mahankal  GEN   
287    288                      Jath  GEN   

                                      MLA Total Electors  
Turnout  \
283     Mansing Fattesingrao Naik ( NCP )       2,91,938  2,27,861
( 78.54 %)   
284    Kadam Vishwajeet Patangrao ( INC )       2,75,988  1,85,886
( 74.83 %)   
285                Anilbhau Babar ( SHS )       3,21,932  2,13,943
( 67.37 %)   
286  Sumanvahini R.R. (Aba) Patil ( NCP )       2,94,333  1,99,528
( 68.38 %)   
287   Vikramsinh Balasaheb Sawant ( INC )       2,70,763  1,74,339
( 64.79 %)   

                   Male              Female                     
Party  \
283  1,43,617 ( 52.2 %)  1,31,763 ( 47.8 %)  Nationalist Congress
Party   
284  1,33,905 ( 51.4 %)  1,26,722 ( 48.6 %)    Indian National
Congress   
285  1,55,345 ( 52.3 %)  1,41,939 ( 47.7 %)                 Shiv
Sena   
286  1,40,177 ( 52.5 %)  1,26,776 ( 47.5 %)  Nationalist Congress
Party   
287  1,27,241 ( 53.5 %)  1,10,560 ( 46.5 %)    Indian National
Congress   

                      Region District  
283  West Maharashtra - Pune   Sangli  
284  West Maharashtra - Pune   Sangli  
285  West Maharashtra - Pune   Sangli  
286  West Maharashtra - Pune   Sangli  
287  West Maharashtra - Pune   Sangli  
```

```
df1.describe()
```

```
            AC_No
count  288.000000
mean   144.500000
std     83.282651
min      1.000000
25%     72.750000
```

```
50%    144.500000
75%    216.250000
max    288.000000
```

```
df1.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 288 entries, 0 to 287
Data columns (total 11 columns):
 #   Column           Non-Null Count  Dtype 
---  ------           --------------  ----- 
 0   AC_No            288 non-null    int64 
 1   AC               288 non-null    object
 2   Type             288 non-null    object
 3   MLA              288 non-null    object
 4   Total Electors   288 non-null    object
 5   Turnout          288 non-null    object
 6   Male             288 non-null    object
 7   Female           288 non-null    object
 8   Party            288 non-null    object
 9   Region           288 non-null    object
 10  District         288 non-null    object
dtypes: int64(1), object(10)
memory usage: 24.9+ KB
```

```
df1.columns
```

```
Index(['AC_No', 'AC', 'Type', 'MLA', 'Total Electors', 'Turnout',
'Male',
       'Female', 'Party', 'Region', 'District'],
      dtype='object')
```

Checking for the Null Values .

```
df1.isnull().sum()
```

```
AC_No             0
AC                0
Type              0
MLA               0
Total Electors    0
Turnout           0
Male              0
Female            0
Party             0
Region            0
District          0
dtype: int64
```

There are no null values in the new updated dataset.

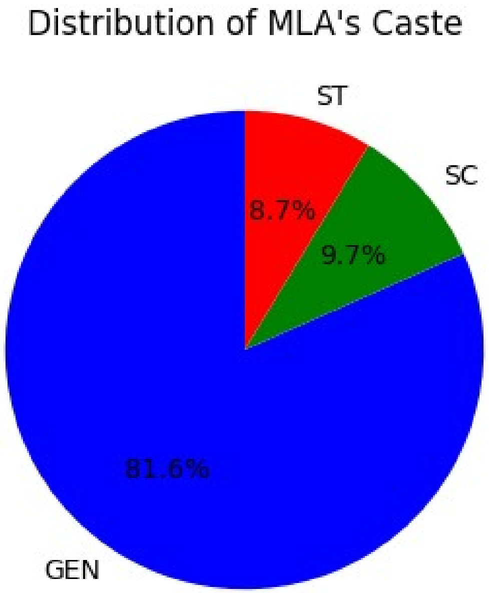
DATA ANALYSIS

Analysis on Caste of MLA

```
df1['Type']

0       ST
1       ST
2       ST
3       ST
4       ST
      ...
283    GEN
284    GEN
285    GEN
286    GEN
287    GEN
Name: Type, Length: 288, dtype: object

df1['Type'].unique()

array(['ST', 'GEN', 'SC'], dtype=object)

df1['Type'].value_counts()

Type
GEN    235
SC      28
ST      25
Name: count, dtype: int64
```

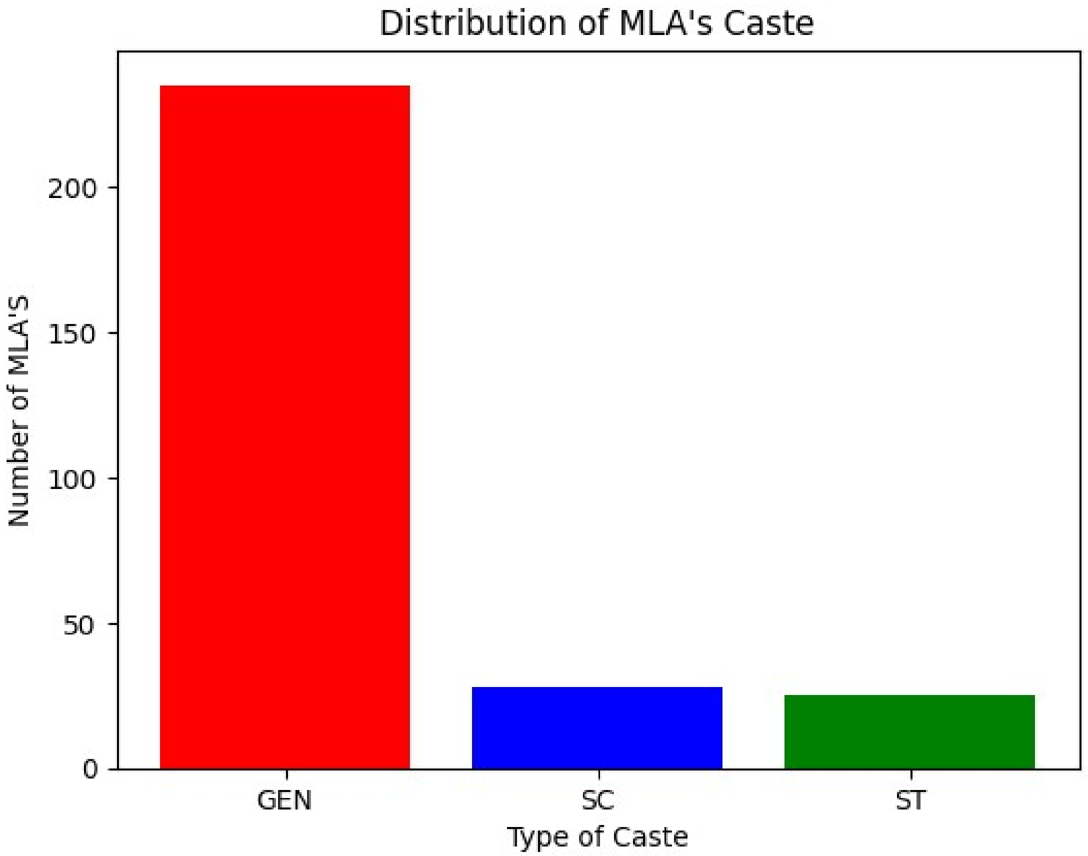
GEN caste has the maximum number of MLA with the number of 235. **SC** has the total 28 number of MLA who has won the election. **ST** caste has the 25 number of MLA whi has secured their seat.

```
value_count_type = df1['Type'].value_counts()

plt.figure(figsize=(6,4))
plt.pie(value_count_type, labels = ['GEN','SC','ST'] , autopct='%1.1f%
%', startangle=90,colors= ['blue','green','red'])
plt.title("Distribution of MLA's Caste")

plt.show()
```



A pie chart is a circular statistical graphic that is divided into slices to illustrate numerical proportions. Each slice represents a proportionate part of the whole dataset. The entire "pie" represents 100% of the data, and the size of each slice is proportional to the quantity it represents. Pie charts are commonly used to display categorical data and are particularly useful for showing the relative sizes of different categories within a dataset.

```
plt.bar(value_count_type.index, value_count_type.values ,
color=['red','blue','green'])
plt.title("Distribution of MLA's Caste")
plt.xlabel("Type of Caste")
plt.ylabel("Number of MLA'S")

plt.show()
```



A bar graph, also known as a bar chart, is a graphical representation of data in which rectangular bars of varying lengths are used to represent different categories or values. The length of each bar corresponds to the magnitude of the data it represents. Bar graphs are typically used to compare and display discrete categories or groups of data, making them useful for visualizing comparisons between different variables or across different time periods. The bars can be oriented either horizontally or vertically, with the horizontal orientation often used when there are many categories or long category names.

PARTIES

```
df1['Party']
```

```
0        Indian National Congress
1           Bharatiya Janta Party
2           Bharatiya Janta Party
3        Indian National Congress
4                     Independent
                  ...
283    Nationalist Congress Party
284      Indian National Congress
285                     Shiv Sena
286    Nationalist Congress Party
```

```
287      Indian National Congress
Name: Party, Length: 288, dtype: object
```

```
df1['Party'].unique()
```

```
array(['Indian National Congress', 'Bharatiya Janta Party',
'Independent',
       'All India Majlis-E-Ittehadul Muslimeen', 'Shiv Sena',
       'Nationalist Congress Party', 'Prahar Janshakti Party ',
       'Swabhimani Paksha', 'Peasants And Workers Party Of India',
       'Rashtriya Samaj Paksha', 'Communist Party Of India (Marxist)',
       'Bahujan Vikas Aaghadi', 'Samajwadi Party',
       'Maharashtra Navnirman Sena', 'Krantikari Shetkari Party',
       'Jan Surajya Shakti'], dtype=object)
```

There are many parties from which the MLA has won the seat. So we will find that which party has maximum MLA won the seat.

```
df1['Party'].value_counts()
```

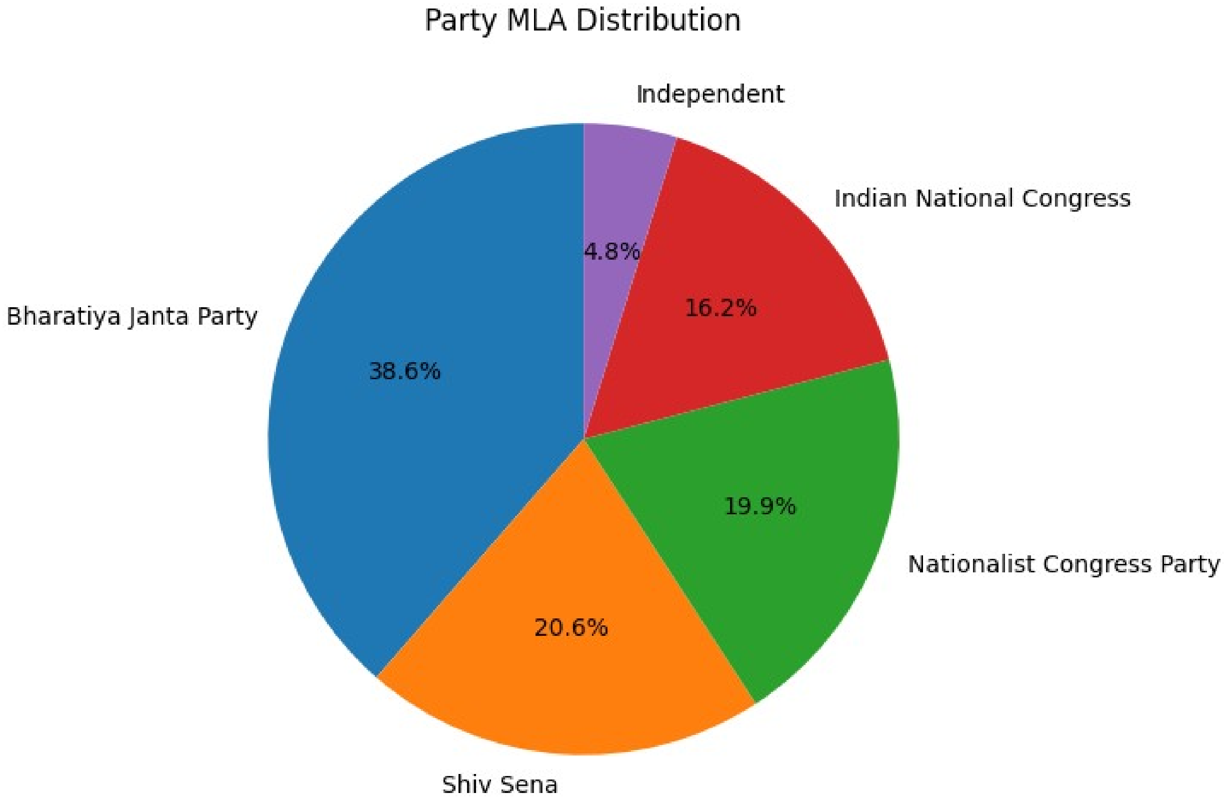
```
Party
Bharatiya Janta Party                     105
Shiv Sena                                  56
Nationalist Congress Party                 54
Indian National Congress                   44
Independent                                13
Bahujan Vikas Aaghadi                       3
All India Majlis-E-Ittehadul Muslimeen      2
Prahar Janshakti Party                      2
Samajwadi Party                             2
Swabhimani Paksha                           1
Peasants And Workers Party Of India         1
Rashtriya Samaj Paksha                      1
Communist Party Of India (Marxist)          1
Maharashtra Navnirman Sena                  1
Krantikari Shetkari Party                   1
Jan Surajya Shakti                          1
Name: count, dtype: int64
```

Bhartiya Janta Party has the maximum number of MLA who has won the seat. And following to it Shiv Sena has 2nd most maximum number of MLA who has won the election. The least number is 1 who has just 1 MLA, and there are 7 many parties with 1 MLA who has won the election.

So now on neglecting the Parties with the least number of MLA we will make analysis on the parties with the most numbers of top 5.

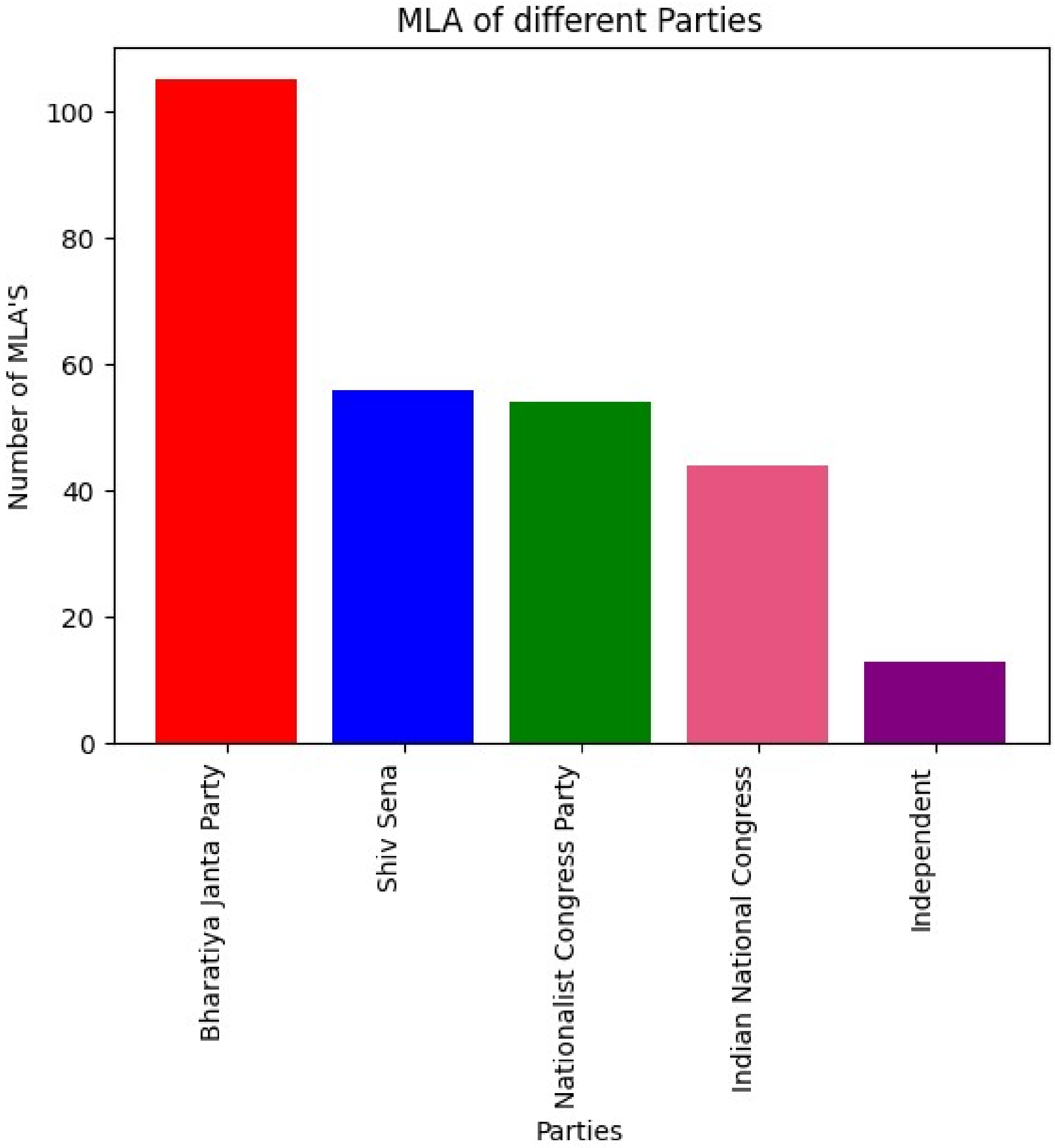
```
party_counts = df1["Party"].value_counts()

top_party_categories = party_counts.head(5)
```

```
print(top_party_categories)

Party
Bharatiya Janta Party          105
Shiv Sena                       56
Nationalist Congress Party      54
Indian National Congress        44
Independent                     13
Name: count, dtype: int64

plt.figure(figsize=(6,6))
plt.pie(top_party_categories, labels = ['Bharatiya Janta Party','Shiv
Sena','Nationalist Congress Party',
                                        'Indian National
Congress','Independent'],
                                        autopct='%1.1f%
%' ,startangle=90)
plt.title("Party MLA Distribution")

plt.show()
```



The above pie chart shows the distribution of the MLA of different parties. In which **Bharatiya Janta Party** has 38.6% and others have been displayed up using pie chart.

```
plt.bar(top_party_categories.index, top_party_categories.values ,
color=['red','blue','green','#E75480','purple'])
plt.title("MLA of different Parties")
plt.xticks(rotation=90, ha="right")
plt.xlabel("Parties")
plt.ylabel("Number of MLA'S")

plt.show()
```



```
df1['Party'].value_counts()

Party
Bharatiya Janta Party                     105
```

```
Shiv Sena                                  56
Nationalist Congress Party                 54
Indian National Congress                   44
Independent                                13
Bahujan Vikas Aaghadi                       3
All India Majlis-E-Ittehadul Muslimeen      2
Prahar Janshakti Party                      2
Samajwadi Party                             2
Swabhimani Paksha                           1
Peasants And Workers Party Of India         1
Rashtriya Samaj Paksha                      1
Communist Party Of India (Marxist)          1
Maharashtra Navnirman Sena                  1
Krantikari Shetkari Party                   1
Jan Surajya Shakti                          1
Name: count, dtype: int64
```

District wise Analysis

```
df1['District']
```

```
0      Nandurbar
1      Nandurbar
2      Nandurbar
3      Nandurbar
4          Dhule
         ...
283       Sangli
284       Sangli
285       Sangli
286       Sangli
287       Sangli
Name: District, Length: 288, dtype: object
```

```
df1['District'].unique()
```

```
array(['Nandurbar', 'Dhule', 'Jalgaon', 'Buldana', 'Akola', 'Washim',
       'Amravati', 'Wardha', 'Nagpur', 'Bhandara', 'Gondiya',
       'Gadchiroli', 'Chandrapur', 'Yavatmal', 'Nanded', 'Hingoli',
       'Parbhani', 'Jalna', 'Aurangabad', 'Nashik', 'Thane',
       'Mumbai (Suburban)', 'Mumbai', 'Raigarh', 'Pune', 'Ahmadnagar',
       'Bid', 'Latur', 'Osmanabad', 'Solapur', 'Satara', 'Ratnagiri',
       'Sindhudurg', 'Kolhapur', 'Sangli'], dtype=object)
```

```
df1['District'].value_counts()
```

```
District
Mumbai (Suburban)    26
Thane                24
Pune                 21
```

```
Nashik                 15
Nagpur                 12
Ahmadnagar             12
Jalgaon                11
Solapur                11
Kolhapur               10
Mumbai                 10
Nanded                  9
Aurangabad              9
Sangli                  8
Satara                  8
Amravati                8
Yavatmal                7
Raigarh                 7
Buldana                 7
Chandrapur              6
Latur                   6
Bid                     6
Ratnagiri               5
Jalna                   5
Dhule                   5
Akola                   5
Parbhani                4
Gondiya                 4
Osmanabad               4
Wardha                  4
Nandurbar               4
Hingoli                 3
Gadchiroli              3
Bhandara                3
Washim                  3
Sindhudurg              3
Name: count, dtype: int64
```

Top 10 District

```
district_top_10 = df1['District'].value_counts()
district_top_10.head(10)
```

```
District
Mumbai (Suburban)    26
Thane                24
Pune                 21
Nashik               15
Nagpur               12
Ahmadnagar           12
Jalgaon              11
Solapur              11
Kolhapur             10
```

```
Mumbai               10
Name: count, dtype: int64
```

```
df1['Region']
```

```
0      North Maharashtra - Nashik
1      North Maharashtra - Nashik
2      North Maharashtra - Nashik
3      North Maharashtra - Nashik
4      North Maharashtra - Nashik
                  ...
283       West Maharashtra - Pune
284       West Maharashtra - Pune
285       West Maharashtra - Pune
286       West Maharashtra - Pune
287       West Maharashtra - Pune
Name: Region, Length: 288, dtype: object
```

```
df1['Region'].unique()
```

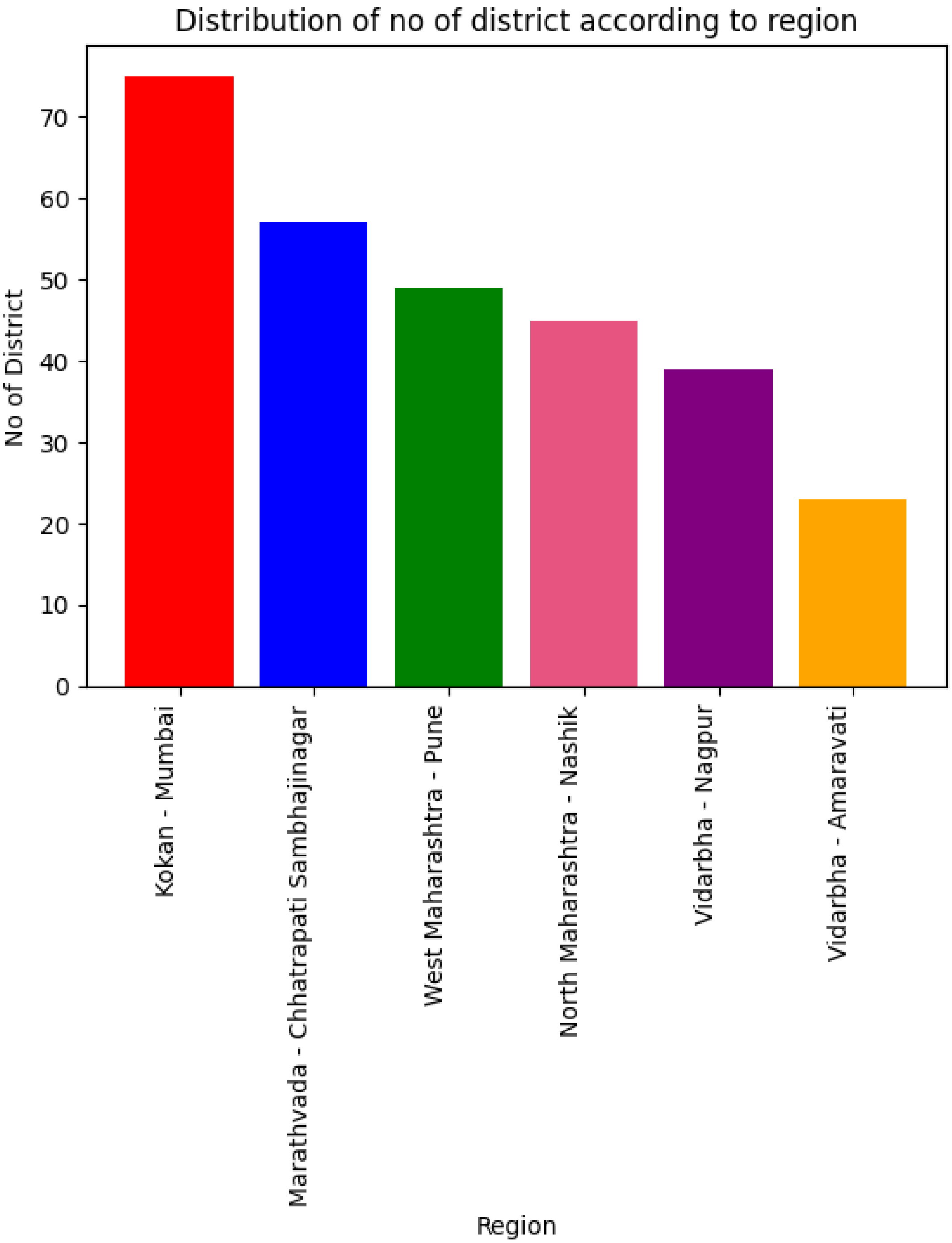
```
array(['North Maharashtra - Nashik', 'Vidarbha - Amaravati',
       'Vidarbha - Nagpur', 'Marathvada - Chhatrapati Sambhajinagar',
       'Kokan - Mumbai', 'West Maharashtra - Pune'], dtype=object)
```

```
df1['Region'].value_counts()
```

```
Region
Kokan - Mumbai                            75
Marathvada - Chhatrapati Sambhajinagar    57
West Maharashtra - Pune                   49
North Maharashtra - Nashik                45
Vidarbha - Nagpur                         39
Vidarbha - Amaravati                      23
Name: count, dtype: int64
```

```
value_count_region = df1['Region'].value_counts()
```

```
plt.bar(value_count_region.index, value_count_region.values ,
color=['red','blue','green','#E75480','purple','orange'])
plt.title("Distribution of no of district according to region")
plt.xticks(rotation=90, ha="right")
plt.xlabel("Region")
plt.ylabel("No of District")

plt.show()
```



Required Comparisions

```
total_voters = df1[['AC', 'Total Electors']]
total_voters.head(20)

                AC Total Electors
0        Akkalkuwa       2,74,595
1          Shahada       3,16,890
```

```
2       Nandurbar       3,36,325
3         Nawapur       2,87,031
4           Sakri       3,39,027
5     Dhule Rural       3,70,224
6      Dhule City       3,16,032
7        Sindkheda      3,24,272
8         Shirpur       3,17,209
9          Chopda       3,07,784
10          Raver       2,97,408
11       Bhusawal       3,03,559
12   Jalgaon City       3,91,544
13  Jalgaon Rural       3,14,918
14        Amalner       2,93,012
15        Erandol       2,79,851
16     Chalisgaon       3,41,016
17        Pachora       3,10,995
18         Jamner       3,07,643
19    Muktainagar       2,91,281
```

Only 20 upper most records are shown. The above 2 columns shows the Total number of electors AC wise.

```
total_voters = df1[['AC', 'MLA']]
total_voters.head(20)

               AC                                     MLA
0       Akkalkuwa             Adv. K. C. Padavi ( INC )
1         Shahada          Rajesh Udesing Padvi ( BJP )
2       Nandurbar    Vijaykumar Krushnarao Gavit ( BJP )
3         Nawapur    Naik Shirishkumar Surupsing ( INC )
4           Sakri        Manjula Tulshiram Gavit ( IND )
5     Dhule Rural        Kunalbaba Rohidas Patil ( INC )
6      Dhule City             Shah Faruk Anwar ( AIMIM )
7       Sindkheda    Jaykumar Jitendrasinh Rawal ( BJP )
8         Shirpur         Kashiram Vechan Pawara ( BJP )
9          Chopda   Latabai Chandrakant Sonawane ( SHS )
10          Raver  Chaudhari Shirish Madhukarrao ( INC )
11       Bhusawal          Sanjay Waman Sawkare ( BJP )
12   Jalgaon City   Suresh Damu Bhole (Rajumama) ( BJP )
13  Jalgaon Rural       Gulabrao Raghunath Patil ( SHS )
14        Amalner             Anil Bhaidas Patil ( NCP )
15        Erandol       Chimanrao Rupchand Patil ( SHS )
16     Chalisgaon         Mangesh Ramesh Chavan ( BJP )
17        Pachora             Kishor Appa Patil ( SHS )
18         Jamner      Girish Dattatraya Mahajan ( BJP )
19    Muktainagar        Chandrakant Nimba Patil ( IND )
```

The above comparision shows that which MLA has won in which AC.

```
total_voters = df1[['AC','Total Electors','Male','Female']]
total_voters.head(20)
```

```
               AC Total Electors               Male
Female
0       Akkalkuwa       2,74,595  1,22,375 ( 50.9 %)  1,18,199 ( 49.1
%)
1         Shahada       3,16,890  1,42,465 ( 51.2 %)  1,35,659 ( 48.8
%)
2       Nandurbar       3,36,325  1,57,219 ( 51.1 %)  1,50,314 ( 48.9
%)
3         Nawapur       2,87,031  1,32,891 ( 49.9 %)  1,33,559 ( 50.1
%)
4           Sakri       3,39,027  1,59,112 ( 52.1 %)  1,46,452 ( 47.9
%)
5     Dhule Rural       3,70,224  1,79,595 ( 52.1 %)  1,65,051 ( 47.9
%)
6      Dhule City       3,16,032  1,65,794 ( 53.0 %)  1,46,747 ( 47.0
%)
7       Sindkheda       3,24,272  1,54,941 ( 51.2 %)  1,47,750 ( 48.8
%)
8         Shirpur       3,17,209  1,53,626 ( 51.3 %)  1,46,053 ( 48.7
%)
9          Chopda       3,07,784  1,49,427 ( 52.2 %)  1,36,676 ( 47.8
%)
10          Raver       2,97,408  1,44,967 ( 53.2 %)  1,27,730 ( 46.8
%)
11       Bhusawal       3,03,559  1,42,813 ( 53.8 %)  1,22,636 ( 46.2
%)
12   Jalgaon City       3,91,544  2,31,359 ( 53.3 %)  2,03,000 ( 46.7
%)
13  Jalgaon Rural       3,14,918  1,50,019 ( 53.0 %)  1,32,988 ( 47.0
%)
14        Amalner       2,93,012  1,41,311 ( 53.0 %)  1,25,262 ( 47.0
%)
15        Erandol       2,79,851  1,36,209 ( 52.8 %)  1,21,776 ( 47.2
%)
16     Chalisgaon       3,41,016  1,70,772 ( 53.8 %)  1,46,918 ( 46.2
%)
17        Pachora       3,10,995  1,51,759 ( 53.1 %)  1,34,275 ( 46.9
%)
18         Jamner       3,07,643  1,43,862 ( 52.5 %)  1,30,168 ( 47.5
%)
19    Muktainagar       2,91,281  1,38,915 ( 52.8 %)  1,24,024 ( 47.2
%)
```

The above comparision shows that which AC hashow many total electors and its also shown the comparision of male and female.

```
total_voters = df1[['MLA','Turnout']]
total_voters.head(20)
```

```
                                      MLA              Turnout
0                Adv. K. C. Padavi ( INC )  1,95,771 ( 73.06 %)
1             Rajesh Udesing Padvi ( BJP )  2,06,944 ( 66.39 %)
2      Vijaykumar Krushnarao Gavit ( BJP )  1,84,968 ( 56.04 %)
3      Naik Shirishkumar Surupsing ( INC )  2,12,713 ( 75.83 %)
4          Manjula Tulshiram Gavit ( IND )  2,03,951 ( 61.38 %)
5          Kunalbaba Rohidas Patil ( INC )  2,43,099 ( 66.27 %)
6               Shah Faruk Anwar ( AIMIM )  1,59,971 ( 51.05 %)
7      Jaykumar Jitendrasinh Rawal ( BJP )  1,98,752 ( 61.85 %)
8           Kashiram Vechan Pawara ( BJP )  2,08,264 ( 66.86 %)
9     Latabai Chandrakant Sonawane ( SHS )  1,97,243 ( 64.79 %)
10   Chaudhari Shirish Madhukarrao ( INC )  2,01,450 ( 68.39 %)
11            Sanjay Waman Sawkare ( BJP )  1,47,377 ( 49.63 %)
12    Suresh Damu Bhole (Rajumama) ( BJP )  1,77,129 ( 46.52 %)
13        Gulabrao Raghunath Patil ( SHS )  1,95,981 ( 62.99 %)
14               Anil Bhaidas Patil ( NCP )  1,83,403 ( 63.11 %)
15        Chimanrao Rupchand Patil ( SHS )  1,76,380 ( 63.74 %)
16           Mangesh Ramesh Chavan ( BJP )  2,16,276 ( 63.91 %)
17               Kishor Appa Patil ( SHS )  1,99,693 ( 64.77 %)
18       Girish Dattatraya Mahajan ( BJP )  2,06,660 ( 67.86 %)
19          Chandrakant Nimba Patil ( IND )  1,94,414 ( 67.36 %)
```

The above comparision shows that which MLA has won with how many turnout.

ANALYSIS ON TOP 5 PARTIES

BHARTIYA JANTA PARTY -- BJP

```
condition1 = df1['Party'] == 'Bharatiya Janta Party'
bjp_df = df1[condition1]

BJP = bjp_df[['MLA','Party']]

BJP.head(20)
```

```
                                      MLA                  Party
1             Rajesh Udesing Padvi ( BJP )  Bharatiya Janta Party
2      Vijaykumar Krushnarao Gavit ( BJP )  Bharatiya Janta Party
7      Jaykumar Jitendrasinh Rawal ( BJP )  Bharatiya Janta Party
8           Kashiram Vechan Pawara ( BJP )  Bharatiya Janta Party
11            Sanjay Waman Sawkare ( BJP )  Bharatiya Janta Party
12    Suresh Damu Bhole (Rajumama) ( BJP )  Bharatiya Janta Party
16           Mangesh Ramesh Chavan ( BJP )  Bharatiya Janta Party
18       Girish Dattatraya Mahajan ( BJP )  Bharatiya Janta Party
22          Shweta Vidyadhar Mahale ( BJP )  Bharatiya Janta Party
25          Akash Pandurang Fundkar ( BJP )  Bharatiya Janta Party
26          Kute Dr. Sanjay Shriram ( BJP )  Bharatiya Janta Party
```

```
27       Prakash Gunwantrao Bharsakale ( BJP )  Bharatiya Janta Party
29  Govardhan Mangilal Sharma @ Lalaji ( BJP )  Bharatiya Janta Party
30         Randhir Pralhadrao Sawarkar ( BJP )  Bharatiya Janta Party
31           Harish Marotiappa Pimpale ( BJP )  Bharatiya Janta Party
33                Lakhan Sahadeo Malik ( BJP )  Bharatiya Janta Party
34            Patni Rajendra Sukhanand ( BJP )  Bharatiya Janta Party
35               Adsad Pratap Arunbhau ( BJP )  Bharatiya Janta Party
43              Dadarao Yadaorao Keche ( BJP )  Bharatiya Janta Party
45            Samir Trimbakrao Kunawar ( BJP )  Bharatiya Janta Party
```

```
print("Total Number of BJP MLA'S = ", BJP.shape[0])
```

```
Total Number of BJP MLA'S =  105
```

There are total 105 MLA members of Bhartiya Janta Party -- BJP who have won the election.

Finding in which AC does BHARTIYA JANTA PARTY has won the seat .

```
region = df1['AC'].unique()

condition1 = df1['Party'] == 'Bharatiya Janta Party'
AC_BJP_df = df1[condition1]

BJP = AC_BJP_df['AC']
BJP.head(20)
```

```
1                Shahada
2              Nandurbar
7              Sindkheda
8                Shirpur
11              Bhusawal
12          Jalgaon City
16            Chalisgaon
18                Jamner
22               Chikhli
25              Khamgaon
26       Jalgaon (Jamod)
27                  Akot
29            Akola West
30            Akola East
31            Murtizapur
33                Washim
34               Karanja
35    Dhamamgaon Railway
43                  Arvi
45            Hinganghat
Name: AC, dtype: object
```

The above displayed are the top upper most 20 records. There are total 105 district in which there is a MLA of BJP

```python
condition = df1['Party'] == 'Bharatiya Janta Party'

voter_df = df1[condition]

BJP = voter_df[['AC','MLA','Total Electors','Male','Female']]

BJP.head(20)
```

```
                    AC                                         MLA  \
1              Shahada                Rajesh Udesing Padvi ( BJP )
2            Nandurbar         Vijaykumar Krushnarao Gavit ( BJP )
7            Sindkheda         Jaykumar Jitendrasinh Rawal ( BJP )
8              Shirpur              Kashiram Vechan Pawara ( BJP )
11            Bhusawal                Sanjay Waman Sawkare ( BJP )
12        Jalgaon City        Suresh Damu Bhole (Rajumama) ( BJP )
16          Chalisgaon               Mangesh Ramesh Chavan ( BJP )
18              Jamner           Girish Dattatraya Mahajan ( BJP )
22             Chikhli             Shweta Vidyadhar Mahale ( BJP )
25            Khamgaon             Akash Pandurang Fundkar ( BJP )
26     Jalgaon (Jamod)             Kute Dr. Sanjay Shriram ( BJP )
27                Akot       Prakash Gunwantrao Bharsakale ( BJP )
29          Akola West  Govardhan Mangilal Sharma @ Lalaji ( BJP )
30          Akola East         Randhir Pralhadrao Sawarkar ( BJP )
31          Murtizapur           Harish Marotiappa Pimpale ( BJP )
33              Washim                Lakhan Sahadeo Malik ( BJP )
34             Karanja            Patni Rajendra Sukhanand ( BJP )
35  Dhamamgaon Railway               Adsad Pratap Arunbhau ( BJP )
43                Arvi              Dadarao Yadaorao Keche ( BJP )
45          Hinganghat            Samir Trimbakrao Kunawar ( BJP )

   Total Electors                Male              Female
1        3,16,890  1,42,465 ( 51.2 %)  1,35,659 ( 48.8 %)
2        3,36,325  1,57,219 ( 51.1 %)  1,50,314 ( 48.9 %)
7        3,24,272  1,54,941 ( 51.2 %)  1,47,750 ( 48.8 %)
8        3,17,209  1,53,626 ( 51.3 %)  1,46,053 ( 48.7 %)
11       3,03,559  1,42,813 ( 53.8 %)  1,22,636 ( 46.2 %)
12       3,91,544  2,31,359 ( 53.3 %)  2,03,000 ( 46.7 %)
16       3,41,016  1,70,772 ( 53.8 %)  1,46,918 ( 46.2 %)
18       3,07,643  1,43,862 ( 52.5 %)  1,30,168 ( 47.5 %)
22       2,93,026  1,38,163 ( 52.6 %)  1,24,288 ( 47.4 %)
25       2,78,694  1,41,235 ( 53.2 %)  1,24,386 ( 46.8 %)
26       2,85,565  1,40,577 ( 53.1 %)  1,24,156 ( 46.9 %)
27       2,81,637  1,43,665 ( 53.9 %)  1,22,828 ( 46.1 %)
29       3,27,394  1,40,997 ( 52.5 %)  1,27,448 ( 47.5 %)
30       3,37,917  1,55,202 ( 52.6 %)  1,39,825 ( 47.4 %)
31       3,18,818    24,147 ( 52.9 %)    21,542 ( 47.1 %)
33       3,45,823  1,74,807 ( 52.7 %)  1,56,906 ( 47.3 %)
34       2,98,871  1,48,594 ( 52.5 %)  1,34,269 ( 47.5 %)
35       3,11,829  1,49,717 ( 52.0 %)  1,37,996 ( 48.0 %)
```

```
43       2,60,513  1,31,826 ( 51.9 %)  1,22,309 ( 48.1 %)
45       2,96,107  1,40,041 ( 53.0 %)  1,24,243 ( 47.0 %)
```

The above displayed are the top upper most 20 records. The above is a table which shows that how many electors were there and out of which how many were male and female. And the above comparision is done on the basis on AC.

SHIV SENA

```
condition2 = df1['Party'] == 'Shiv Sena'
shi_sena_df = df1[condition2]

shi_sena = shi_sena_df[['MLA','Party']]

shi_sena.head(20)
```

```
                                      MLA      Party
9    Latabai Chandrakant Sonawane ( SHS )  Shiv Sena
13       Gulabrao Raghunath Patil ( SHS )  Shiv Sena
15       Chimanrao Rupchand Patil ( SHS )  Shiv Sena
17              Kishor Appa Patil ( SHS )  Shiv Sena
21         Sanjay Rambhau Gaikwad ( SHS )  Shiv Sena
24       Sanjay Bhaskar Raymulkar ( SHS )  Shiv Sena
28      Nitinkumar Bhikanrao Tale ( SHS )  Shiv Sena
78        Rathod Sanjay Dulichand ( SHS )  Shiv Sena
85    Balaji Devidasrao Kalyankar ( SHS )  Shiv Sena
92       Bangar Santosh Laxmanrao ( SHS )  Shiv Sena
95     Dr. Rahul Vedprakash Patil ( SHS )  Shiv Sena
103       Abdul Sattar Abdul Nabi ( SHS )  Shiv Sena
104    Udaysing Sardarsing Rajput ( SHS )  Shiv Sena
106   Jaiswal Pradeep Shivnarayan ( SHS )  Shiv Sena
107      Sanjay Pandurang Shirsat ( SHS )  Shiv Sena
109    Bhumare Sandipanrao Asaram ( SHS )  Shiv Sena
111      Bornare Ramesh Nanasaheb ( SHS )  Shiv Sena
112        Suhas Dwarkanath Kande ( SHS )  Shiv Sena
114            Bhuse Dadaji Dagdu ( SHS )  Shiv Sena
129     Shrinivas Chintaman Vanga ( SHS )  Shiv Sena
```

Only 20 upper most records are shown. The above 2 columns shows the Total number of electors AC wise.

```
shi_sena.shape
```

```
(56, 2)
```

```
print("Total Number of SHIV SENA'S MLA'S = ", shi_sena.shape[0])
```

```
Total Number of SHIV SENA'S MLA'S =  56
```

There are 56 MLA'S who have won the election in different AC.

Finding in which AC does SHIV SENA has won the seat .

```
region = df1['AC'].unique()

condition1 = df1['Party'] == 'Bharatiya Janta Party'
AC_shiv_sena_df = df1[condition1]

shiv_sena = AC_shiv_sena_df['AC']
shiv_sena.head(20)

1                  Shahada
2                Nandurbar
7                Sindkheda
8                  Shirpur
11                Bhusawal
12            Jalgaon City
16              Chalisgaon
18                  Jamner
22                 Chikhli
25                Khamgaon
26         Jalgaon (Jamod)
27                    Akot
29              Akola West
30              Akola East
31              Murtizapur
33                  Washim
34                 Karanja
35    Dhamamgaon Railway
43                    Arvi
45              Hinganghat
Name: AC, dtype: object
```

The above displayed are the top upper most 20 records. There are total 56 district in which there is a MLA of SHIV SENA

```
condition = df1['Party'] == 'Shiv Sena'

voter_df = df1[condition]

BJP = voter_df[['AC','MLA','Total Electors','Male','Female']]

BJP.head(20)

                     AC                                   MLA Total
Electors  \
9                Chopda  Latabai Chandrakant Sonawane ( SHS )
3,07,784
13        Jalgaon Rural      Gulabrao Raghunath Patil ( SHS )
3,14,918
15              Erandol      Chimanrao Rupchand Patil ( SHS )
```

```
2,79,851
17                Pachora             Kishor Appa Patil ( SHS )
3,10,995
21               Buldhana         Sanjay Rambhau Gaikwad ( SHS )
3,04,842
24                 Mehkar       Sanjay Bhaskar Raymulkar ( SHS )
2,90,113
28                Balapur     Nitinkumar Bhikanrao Tale ( SHS )
2,94,781
78                 Digras        Rathod Sanjay Dulichand ( SHS )
3,20,572
85           Nanded North   Balaji Devidasrao Kalyankar ( SHS )
3,08,197
92              Kalamnuri       Bangar Santosh Laxmanrao ( SHS )
3,05,263
95               Parbhani    Dr. Rahul Vedprakash Patil ( SHS )
3,01,366
103                Sillod        Abdul Sattar Abdul Nabi ( SHS )
3,17,733
104                Kannad    Udaysing Sardarsing Rajput ( SHS )
3,12,269
106  Aurangabad Central   Jaiswal Pradeep Shivnarayan ( SHS )
3,19,744
107     Aurangabad West       Sanjay Pandurang Shirsat ( SHS )
3,31,163
109               Paithan    Bhumare Sandipanrao Asaram ( SHS )
2,90,703
111              Vaijapur      Bornare Ramesh Nanasaheb ( SHS )
3,07,722
112              Nandgaon        Suhas Dwarkanath Kande ( SHS )
3,17,318
114        Malegaon Outer            Bhuse Dadaji Dagdu ( SHS )
3,36,886
129               Palghar     Shrinivas Chintaman Vanga ( SHS )
2,71,182

                      Male                 Female
9    1,49,427 ( 52.2 %)  1,36,676 ( 47.8 %)
13   1,50,019 ( 53.0 %)  1,32,988 ( 47.0 %)
15   1,36,209 ( 52.8 %)  1,21,776 ( 47.2 %)
17   1,51,759 ( 53.1 %)  1,34,275 ( 46.9 %)
21   1,42,054 ( 52.9 %)  1,26,574 ( 47.1 %)
24   1,47,789 ( 52.6 %)  1,33,320 ( 47.4 %)
28   1,45,412 ( 53.1 %)  1,28,407 ( 46.9 %)
78   1,56,687 ( 53.3 %)  1,37,362 ( 46.7 %)
85   1,76,296 ( 52.8 %)  1,57,297 ( 47.2 %)
92   1,52,712 ( 53.5 %)  1,32,915 ( 46.5 %)
95   1,88,701 ( 53.1 %)  1,66,491 ( 46.9 %)
103  1,48,478 ( 54.2 %)  1,25,216 ( 45.8 %)
```

```
104  1,47,459 ( 53.6 %)  1,27,854 ( 46.4 %)
106  1,42,039 ( 52.7 %)  1,27,567 ( 47.3 %)
107  1,39,800 ( 54.0 %)  1,18,871 ( 46.0 %)
109  1,50,279 ( 53.9 %)  1,28,302 ( 46.1 %)
111  1,46,948 ( 53.0 %)  1,30,385 ( 47.0 %)
112  1,48,235 ( 52.6 %)  1,33,762 ( 47.4 %)
114  1,56,140 ( 53.1 %)  1,37,898 ( 46.9 %)
129  1,17,721 ( 51.5 %)  1,10,889 ( 48.5 %)
```

The above displayed are the top upper most 20 records. The above is a table which shows that how many electors were there and out of which how many were male and female. And the above comparision is done on the basis on AC.

Nationalist Congress Party

```
condition2 = df1['Party'] == 'Nationalist Congress Party'
NCP_df = df1[condition2]

NCP = NCP_df[['MLA','Party']]

NCP.head(20)

                                                   MLA  \
14                          Anil Bhaidas Patil ( NCP )
23            Dr. Rajendra Bhaskarrao Shingane ( NCP )
47                               Anil Deshmukh ( NCP )
59                      Karemore Raju Manikrao ( NCP )
62             Chandrikapure Manohar Gowardhan ( NCP )
68            Aatram Dharamraobaba Bhagwantrao ( NCP )
80                       Naik Indranil Manohar ( NCP )
91   Chandrakant Alias Rajubhaiyya Ramakant Nawghar...
99                          Rajeshbhaiyya Tope ( NCP )
116                   Nitin Arjun (A.T.) PAWAR ( NCP )
118                            Chhagan Bhujbal ( NCP )
119            Adv. Kokate Manikrao Shivajirao ( NCP )
120                 Bankar Diliprao Shankarrao ( NCP )
121                     Zirwal Narhari Sitaram ( NCP )
125                        Saroj Babulal Ahire ( NCP )
128                  Bhusara Sunil Chandrakant ( NCP )
134                        Daulat Bhika Daroda ( NCP )
148                      Awhad Jitendra Satish ( NCP )
171                                Nawab Malik ( NCP )
192                        Aditi Sunil Tatkare ( NCP )

                          Party
14   Nationalist Congress Party
23   Nationalist Congress Party
47   Nationalist Congress Party
59   Nationalist Congress Party
62   Nationalist Congress Party
```

```
68   Nationalist Congress Party
80   Nationalist Congress Party
91   Nationalist Congress Party
99   Nationalist Congress Party
116  Nationalist Congress Party
118  Nationalist Congress Party
119  Nationalist Congress Party
120  Nationalist Congress Party
121  Nationalist Congress Party
125  Nationalist Congress Party
128  Nationalist Congress Party
134  Nationalist Congress Party
148  Nationalist Congress Party
171  Nationalist Congress Party
192  Nationalist Congress Party
```

Only 20 upper most records are shown. The above 2 columns shows the Total number of electors AC wise.

```
NCP.shape

(54, 2)

print("Total Number of Nationalist Congress Party MLA'S = ",
NCP.shape[0])

Total Number of Nationalist Congress Party MLA'S =  54
```

There are 54 MLA'S who have won the election in different AC.

Finding in which AC does Nationalist Congress Party has won the seat .

```
region = df1['AC'].unique()

condition1 = df1['Party'] == 'Nationalist Congress Party'
AC_NCP_df = df1[condition1]

NCP1 = AC_NCP_df['AC']
NCP1.head(20)

14             Amalner
23       Sindkhed Raja
47               Katol
59              Tumsar
62      Arjuni-Morgaon
68               Aheri
80               Pusad
91             Basmath
99          Ghansawangi
116             Kalwan
```

```
118              Yevla
119             Sinnar
120             Niphad
121            Dindori
125            Devlali
128          Vikramgad
134           Shahapur
148       Mumbra-Kalwa
171    Anushakti Nagar
192        Shrivardhan
Name: AC, dtype: object
```

The above displayed are the top upper most 20 records. There are total 54 district in which there is a MLA of Nationalist Congress Party

```
condition = df1['Party'] == 'Nationalist Congress Party'

voter_df1 = df1[condition]

NCP2 = voter_df1[['AC','MLA','Total Electors','Male','Female']]

NCP2.head(20)
```

```
                  AC  
MLA  \
14           Amalner                         Anil Bhaidas Patil 
( NCP )
23     Sindkhed Raja          Dr. Rajendra Bhaskarrao Shingane 
( NCP )
47             Katol                              Anil Deshmukh 
( NCP )
59            Tumsar                     Karemore Raju Manikrao 
( NCP )
62    Arjuni-Morgaon            Chandrikapure Manohar Gowardhan 
( NCP )
68             Aheri           Aatram Dharamraobaba Bhagwantrao 
( NCP )
80             Pusad                      Naik Indranil Manohar 
( NCP )
91           Basmath  Chandrakant Alias Rajubhaiyya Ramakant 
Nawghar...
99       Ghansawangi                         Rajeshbhaiyya Tope 
( NCP )
116           Kalwan                   Nitin Arjun (A.T.) PAWAR 
( NCP )
118            Yevla                            Chhagan Bhujbal 
( NCP )
119           Sinnar            Adv. Kokate Manikrao Shivajirao 
( NCP )
```

```
120          Niphad                 Bankar Diliprao Shankarrao
( NCP )
121         Dindori                     Zirwal Narhari Sitaram
( NCP )
125         Devlali                        Saroj Babulal Ahire
( NCP )
128       Vikramgad                  Bhusara Sunil Chandrakant
( NCP )
134        Shahapur                        Daulat Bhika Daroda
( NCP )
148     Mumbra-Kalwa                     Awhad Jitendra Satish
( NCP )
171  Anushakti Nagar                                Nawab Malik
( NCP )
192      Shrivardhan                       Aditi Sunil Tatkare
( NCP )

    Total Electors                Male              Female
14        2,93,012  1,41,311 ( 53.0 %)  1,25,262 ( 47.0 %)
23        3,10,669  1,49,859 ( 52.8 %)  1,33,831 ( 47.2 %)
47        2,71,118  1,32,476 ( 53.2 %)  1,16,557 ( 46.8 %)
59        3,00,038  1,45,256 ( 51.1 %)  1,39,204 ( 48.9 %)
62        2,53,101  1,24,250 ( 51.1 %)  1,18,772 ( 48.9 %)
68        2,35,954  1,20,075 ( 51.4 %)  1,13,533 ( 48.6 %)
80        2,89,675  1,47,920 ( 53.0 %)  1,30,918 ( 47.0 %)
91        2,90,797  1,40,398 ( 53.1 %)  1,23,948 ( 46.9 %)
99        3,07,190  1,52,720 ( 52.5 %)  1,37,993 ( 47.5 %)
116       2,68,199  1,24,062 ( 52.1 %)  1,14,161 ( 47.9 %)
118       2,96,332  1,42,064 ( 53.1 %)  1,25,587 ( 46.9 %)
119       3,00,468  1,40,828 ( 53.1 %)  1,24,598 ( 46.9 %)
120       2,68,515  1,29,798 ( 52.9 %)  1,15,540 ( 47.1 %)
121       3,02,348  1,35,349 ( 52.5 %)  1,22,250 ( 47.5 %)
125       2,64,431  1,21,479 ( 53.1 %)  1,07,501 ( 46.9 %)
128       2,64,259  1,25,563 ( 50.7 %)  1,21,875 ( 49.3 %)
134       2,47,443  1,24,366 ( 51.4 %)  1,17,412 ( 48.6 %)
148       3,37,099  1,79,426 ( 55.1 %)  1,46,015 ( 44.9 %)
171       2,47,954  1,55,558 ( 55.4 %)  1,25,167 ( 44.6 %)
192       2,56,247  1,17,634 ( 49.0 %)  1,22,484 ( 51.0 %)
```

The above displayed are the top upper most 20 records. The above is a table which shows that how many electors were there and out of which how many were male and female. And the above comparision is done on the basis on AC.

SUMMARY

The main aim of the data analysis for the Maharashtra election of 2019 is to provide a comprehensive understanding of the electoral process and its outcomes. Through meticulous examination of voter turnout, party performance, coalition dynamics, and key issues, the analysis aims to unravel the intricate tapestry of Maharashtra's political landscape. By identifying regional variations, post-election realignments, and policy implications, the analysis seeks to offer valuable insights for stakeholders, policymakers, and the general public. Ultimately, the aim is to contribute to a deeper understanding of the electoral dynamics and governance challenges in Maharashtra, shaping informed decision-making and discourse .

THANK YOU