PYTHONIC CODE

1) Number of Aadhaar Identities which are generated in each state.

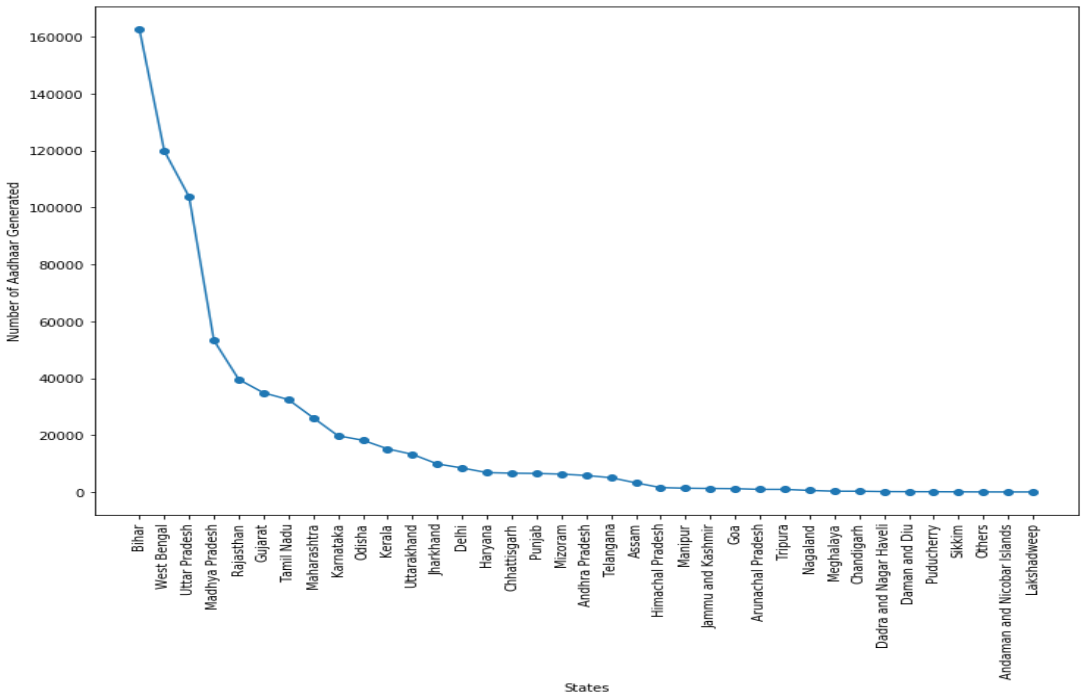
State vs Aadhaar.py

```
import operator
import csv
import matplotlib.pyplot as plt
raw=[]
data = open('UIDAI.csv', 'r')
next(data)
for line in data:
    raw.append(line.strip().split(','))
mvk={}
for row in raw:
    k=row[2]
    v=row[8]
    if v!='':
        v=int(float(v))
    else:
        v=0
    if k in mvk:
        mvk[k]+=v
    else:
        mvk[k]=v
sorted_d = dict( sorted(mvk.items(), key=lambda x: x[1], reverse=True))
states=[]
Aadhaars=[]
for key ,value in sorted_d.items():
    states.append(key)
    Aadhaars.append(value)
for i in range(len(states)):
    print(states[i],Aadhaars[i])

plt.plot(states,Aadhaars,marker="o")
plt.xticks(rotation=90)
plt.xlabel("States")
plt.ylabel("Number of Aadhaar Generated")
plt.savefig('States_vs_Aadhaar.png')
plt.show()
```

OUTPUT

```
Bihar 162607
West Bengal 119901
Uttar Pradesh 103767
Madhya Pradesh 53276
Rajasthan 39570
Gujarat 34844
Tamil Nadu 32485
Maharashtra 26085
Karnataka 19764
Odisha 18182
Kerala 15143
Uttarakhand 13227
Jharkhand 9868
Delhi 8426
Haryana 6804
Chhattisgarh 6604
Punjab 6506
Mizoram 6279
Andhra Pradesh 5798
Telangana 5018
Assam 3213
Himachal Pradesh 1547
Manipur 1323
Jammu and Kashmir 1234
Goa 1167
Arunachal Pradesh 913
Tripura 908
Nagaland 545
Meghalaya 277
Chandigarh 259
Dadra and Nagar Haveli 140
Daman and Diu 105
Puducherry 83
Sikkim 50
Others 12
Andaman and Nicobar Islands 5
Lakshadweep 4
```



2) Number of Aadhaar Identities which are generated by each Enrollment Agency.

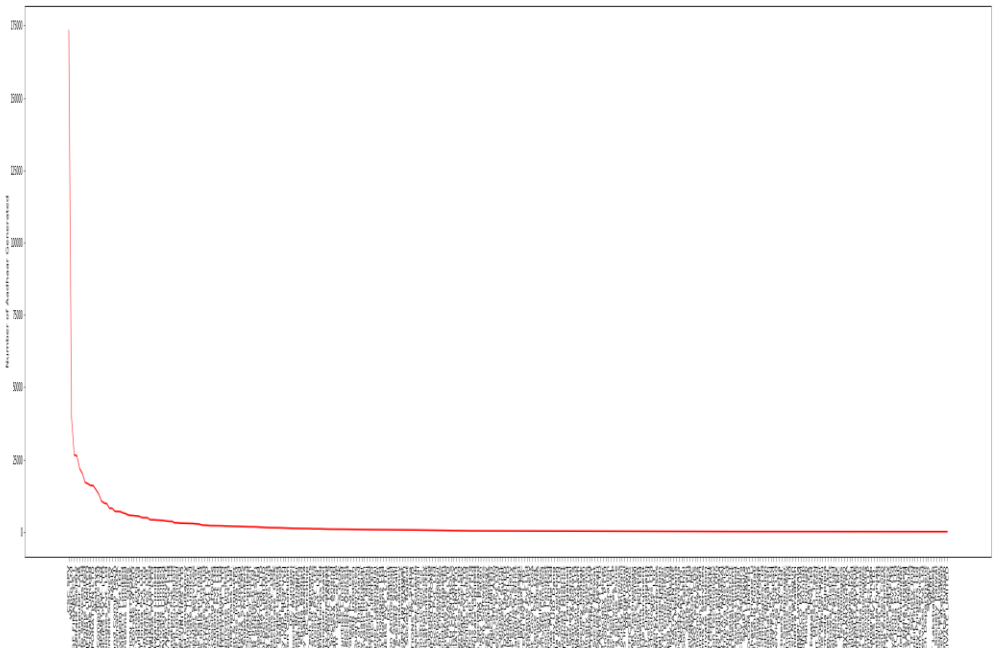
EnrollAgency_vs_Aadhaar.py

```
import operator
import csv
import matplotlib.pyplot as plt
raw=[]
data = open('UIDAI.csv', 'r')
next(data)
for line in data:
    raw.append(line.strip().split(','))
mvk={}
for row in raw:
    k=row[1]
    v=row[8]
    if v!='':
        v=int(float(v))
    else:
        v=0
    if k in mvk:
        mvk[k]+=v
    else:
        mvk[k]=v
sorted_d = dict( sorted(mvk.items(), key=lambda x: x[1], reverse=True))
EnrollAgency=[]
Aadhaars=[]
for key ,value in sorted_d.items():
    EnrollAgency.append(key)
    Aadhaars.append(value)
for i in range(0,20):                   #printing first 20
    print(EnrollAgency[i], Aadhaars[i])
fig_size[0] = 55
fig_size[1] = 9
plt.rcParams["figure.figsize"] = fig_size
plt.plot(EnrollAgency,Aadhaars,"r")
plt.xticks(rotation=90)
plt.xlabel("Enrollment Agency")
plt.ylabel("Number of Aadhaar Generated")
plt.savefig('EnrollAgency_vs_Aadhaar.png')
plt.show()
```

OUTPUT:

```
CSC SPV 173192
Wipro Ltd 39619
SREI INFRASTRUCTURE FINANCES L 26497
SRM Education And Social Welfare Society 26253
Computer LAB 21823
Rajcomp Info Services Ltd 20163
MPOnline Limited 17020
AKSH OPTIFIBRE LIMITED 16624
Nielsen  India  Private Limited 15993
TAMILNADU ARASU CABLE TV CORPORATION LTD 15981
Akshaya 14562
CMS Computers Ltd 13126
IAP COMPANY Pvt. Ltd 10644
VEETECHNOLOGIES PVT. LTD 9922
NPS Technologies Pvt. Ltd 9692
Karvy Data Management Services 8086
BASIX 8079
A I Soc for Electronics and Comp Tech 7041
Centre for e-Governance  GOK 7027
Zephyr System Pvt.Ltd. 6946
```

Total rows = 325
Due to large data volume, first 20 are displayed



If you wish to read the graph, please download "EnrollAgency_vs_Aadhaar.png" on your local machine and then open it with a suitable image viewer

3) Top 10 districts with maximum Aadhaar identities generated for both Male and Female.

Top Districts.py

```
import operator
import csv
import matplotlib.pyplot as plt
raw=[]
data = open('UIDAI.csv', 'r')
next(data)
for line in data:
    raw.append(line.strip().split(','))
mvkmale={}
mvkfemale={}
mvk={}
for row in raw:
    k=row[3]
    v=row[8]
    if v!='':
        v=int(float(v))
    else:
        v=0
    if k in mvk:
        mvk[k]+=v
    else:
        mvk[k]=v
sorted_d = dict( sorted(mvk.items(), key=lambda x: x[1], reverse=True))
top10={k: sorted_d[k] for k in list(sorted_d)[:10]}
#print(top10)
for key ,value in sorted_d.items():
    states.append(key)
    Aadhaars.append(value)
for row in raw:
    k=row[3]
    v=row[8]
    g=row[6]

    if g=="M":
        if v!='':
            v=int(float(v))
        else:
            v=0
        if k in mvkmale:
            mvkmale[k]+=v
        else:
            mvkmale[k]=v
    elif g=="F":
```

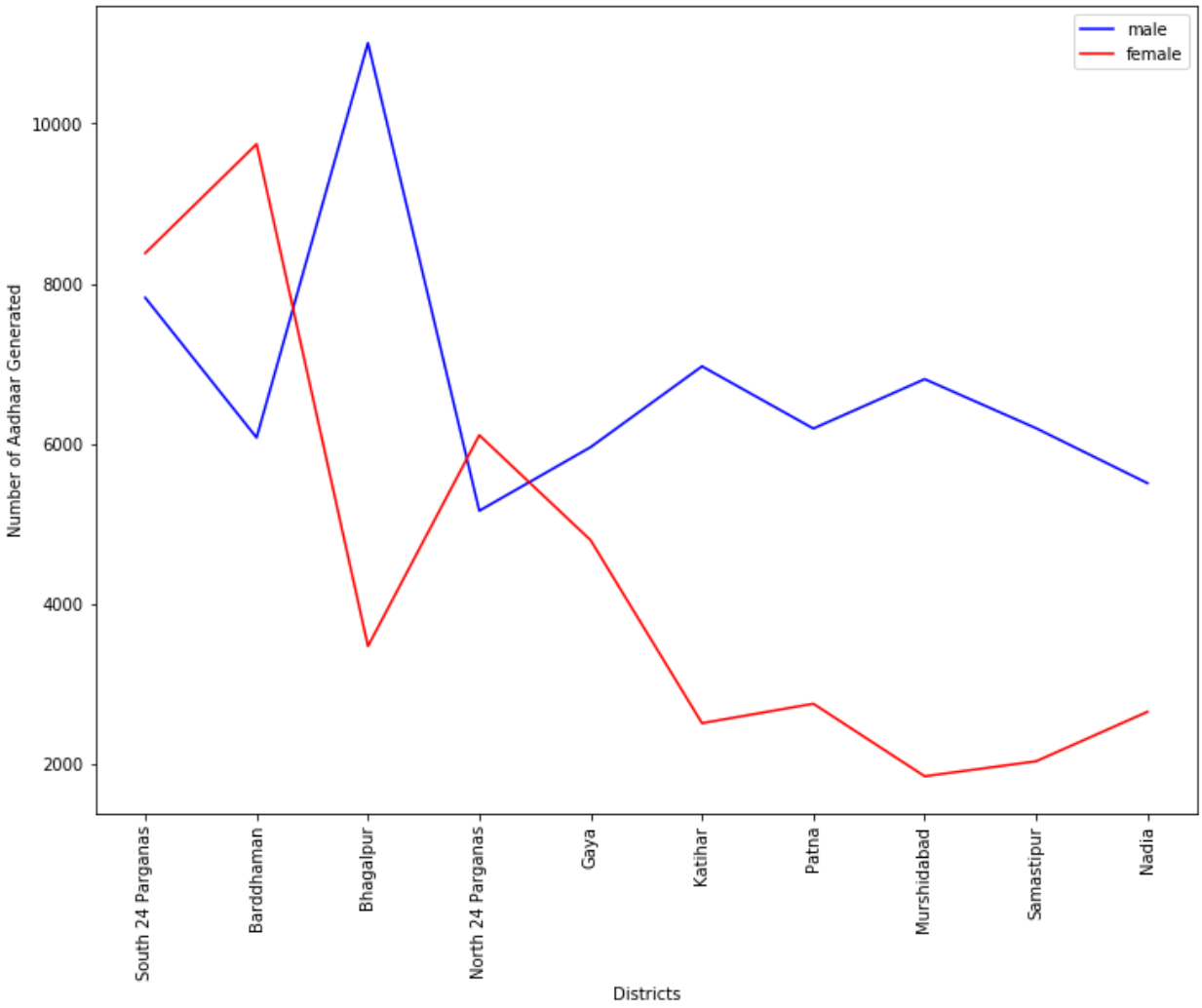
```
        if v!='':
            v=int(float(v))
        else:
            v=0
        if k in mvkfemale:
            mvkfemale[k]+=v
        else:
            mvkfemale[k]=v

sorted_male = dict( sorted(mvkmale.items(), key=lambda x: x[1], reverse=True))
sorted_female = dict( sorted(mvkfemale.items(), key=lambda x: x[1], reverse=True))
Dist=[]
male=[]
female=[]
for item in top10:
    Dist.append(item)
    male.append(sorted_male[item])
    female.append(sorted_female[item])

for i in range(0,10):
    print(Dist[i],male[i],female[i])
fig_size[0] = 12
fig_size[1] = 9
plt.rcParams["figure.figsize"] = fig_size
plt.plot(Dist,male,"b",label="male")
plt.plot(Dist,female,"r",label="female")
plt.xticks(rotation=90)
plt.xlabel("Districts")
plt.ylabel("Number of Aadhaar Generated")
plt.legend()
plt.show()
```

OUTPUT:

```
South 24 Parganas 7825 8382
Barddhaman 6077 9744
Bhagalpur 11007 3472
North 24 Parganas 5164 6108
Gaya 5959 4796
Katihar 6968 2511
Patna 6191 2754
Murshidabad 6808 1848
Samastipur 6195 2035
Nadia 5509 2653
```


male
female
10000
8000
6000
4000
2000
Number of Aadhaar Generated
South 24 Parganas
Barddhaman
Bhagalpur
North 24 Parganas
Gaya
Katihar
Patna
Murshidabad
Samastipur
Nadia
Districts