

```
In [1]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

```
In [17]: df=pd.read_csv("POPULATION_DETAILS_SCST_2001_CENSUS.csv")
pd.set_option('display.max_columns', None)
df
```

Out[17]:

	Type	Name of the ULB	Grade of Municipalities	Total	Male	Female	SC	ST	Po
0	Corporations	Coimbatore	NaN	1262122	646433	615689	77178	535	
1	Corporations	Madurai	NaN	1230015	621731	608284	53676	2064	
2	Corporations	Tiruchirapalli	NaN	796644	398542	398102	70969	2991	
3	Corporations	Tirunelveli	NaN	411831	203232	208599	50564	1696	
4	Corporations	Salem	NaN	696760	353933	342827	76653	1345	
...
129	Municipalities	Vikramasingapuram	Grade-II	48309	24019	24290	3426	20	
130	Municipalities	Kayalpattinam	Grade-II	32664	15010	17654	2627	14	
131	Municipalities	Kuzhithurai	Grade-II	20503	10069	10434	341	27	
132	Municipalities	Padmanabhapuram	Grade-II	20075	9967	10108	2112	7	
133	Municipalities	Sattur	Grade-II	31443	15439	16004	1954	198	

134 rows × 11 columns

```
In [66]: df.info()
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```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 134 entries, 0 to 133
Data columns (total 11 columns):
#   Column                                Non-Null Count  Dtype
---  -
0   Type                                  134 non-null    object
1   Name of the ULB                      134 non-null    object
2   Grade of Municipalities              125 non-null    object
3   Total                                134 non-null    int64
4   Male                                 134 non-null    int64
5   Female                               134 non-null    int64
6   SC                                   134 non-null    int64
7   ST                                   134 non-null    int64
8   % of Women Population                134 non-null    float64
9   % of SC Population                  134 non-null    float64
10  % of ST Population                   134 non-null    float64
dtypes: float64(3), int64(5), object(3)
memory usage: 11.6+ KB
```

```
In [92]: df.describe()
```

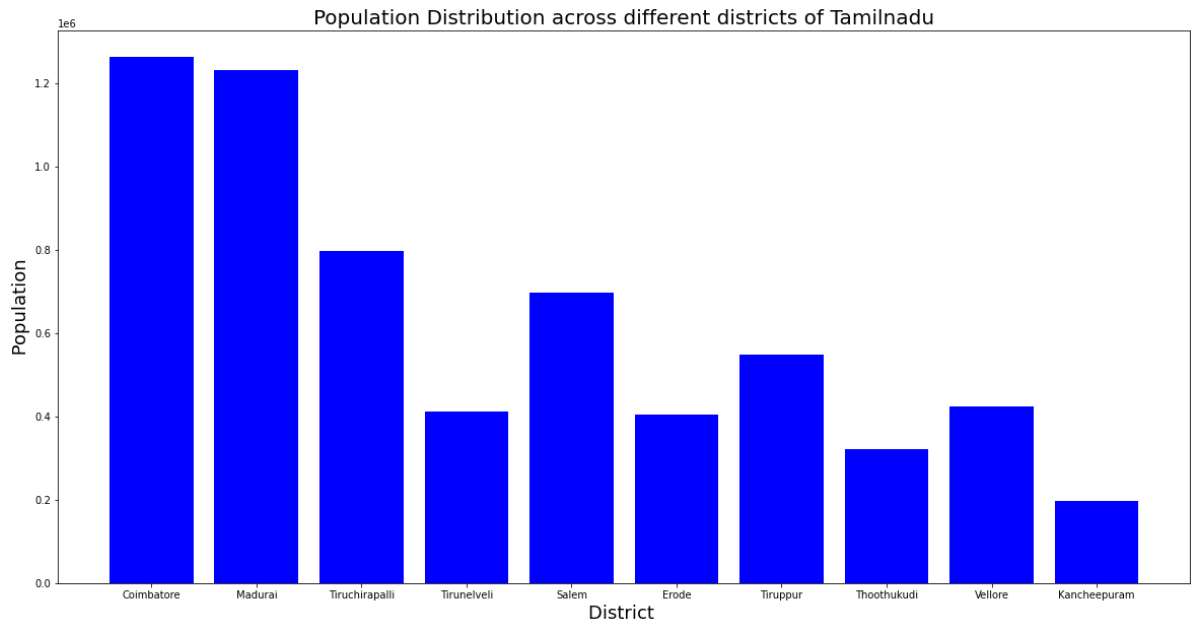
Out[92]: 'Municipalities'

```
In [38]: l1=df['Name of the ULB'].values
```

```

l2=df['Total'].values
x=l1[:10]
y=l2[:10]
X=np.array([x,y]).T
# plt.scatter(l1[:100],l2[:100])
plt.figure(figsize=(20, 10))
plt.bar(x,y,color="blue")
plt.title("Population Distribution across different districts of Tamilnadu", fontsize=18)
plt.ylabel(" Population ", fontsize=18)
plt.xlabel("District ",fontsize=18)
plt.show()

```

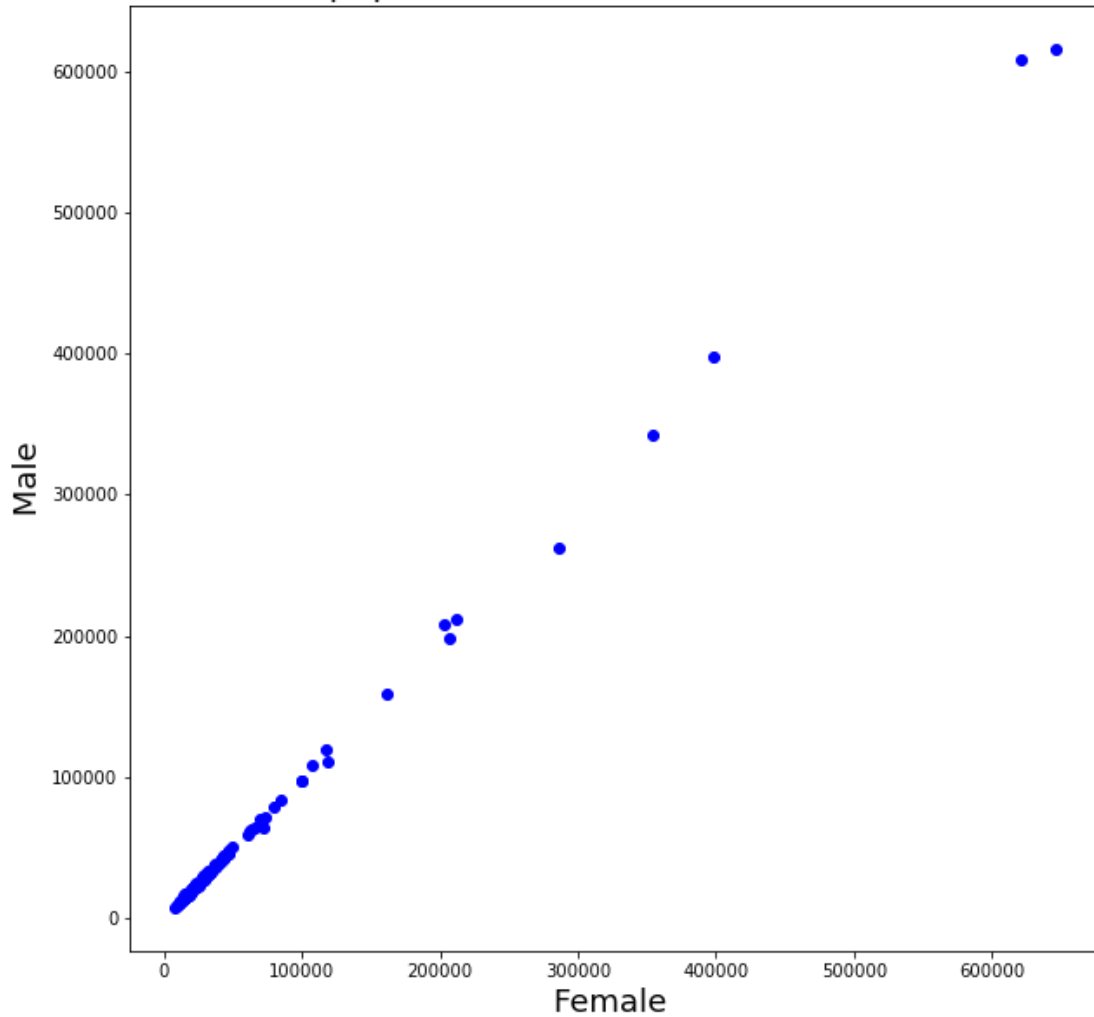


```

In [84]: l1=df['Male'].values
l2=df['Female'].values
# x=l1[:10]
# y=l2[:10]
X=np.array([x,y]).T
# plt.scatter(l1[:100],l2[:100])
plt.figure(figsize=(10, 10))
# plt.bar(x,y,color="blue")
plt.scatter(l1,l2,color="blue")
plt.title("Male vs Female population across different districts of Tamilnadu", fontsize=18)
plt.ylabel(" Male ", fontsize=18)
plt.xlabel("Female ",fontsize=18)
plt.show()

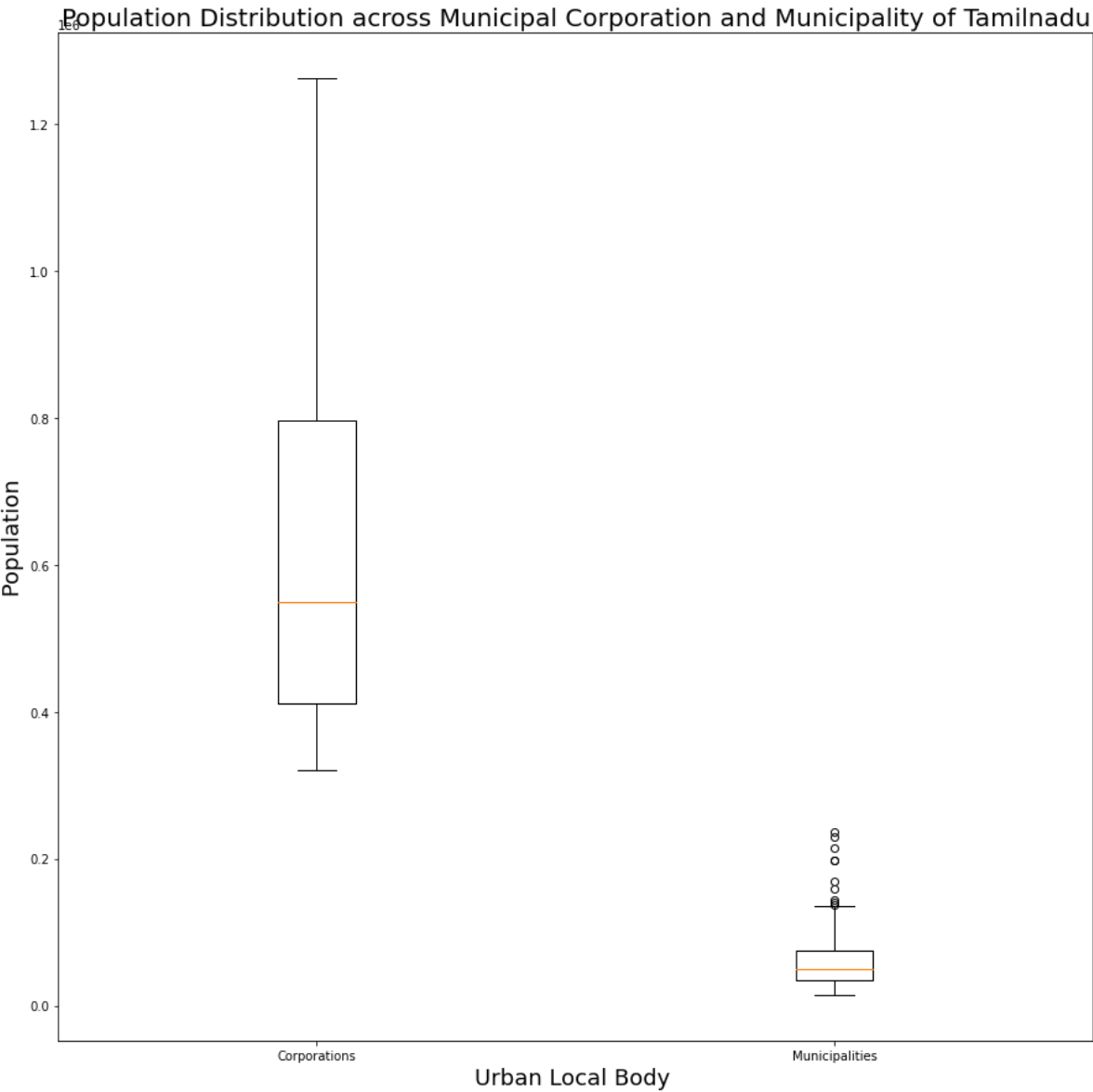
```

Male vs Female population across different districts of Tamilnadu



```
In [99]: list_type = list(df["Type"].unique())
# print(list_type)
corp=(df[df["Type"] == "Corporations"]["Total"].to_numpy())
mun=(df[df["Type"] == "Municipalities"]["Total"].to_numpy())
list_corp_mun=[corp,mun]
plt.figure(figsize=(15, 15))
# plt.scatter(l1,l2,color="blue")
plt.title("Population Distribution across Municipal Corporation and Municipality of")
plt.ylabel(" Population ", fontsize=18)
plt.xlabel("Urban Local Body ",fontsize=18)

plt.boxplot(list_corp_mun,labels=["Corporations","Municipalities"])
plt.show()
```



In []: