DEPARTMENT OF COMPUTER SCIENCE,
UNIVERSITY OF DELHI

Masters of Computer Application
(2021-2024)

REPORT ON EXPLORATORY DATA ANALYSIS

Using R Language

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Submitted To:
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DESCRIPTION OF DATA SET

Dataset : Population Analysis of Delhi 2001

Data set file name : PCA0705_New_Delhi-2001

Source : **data.gov.in**

Description :
This data refers to the area wise population of New Delhi, it gives us an overview of urban and rural areas, total literate population, total illiterate population, working males and females, caste wise population in rural and urban areas, population working as cultivators, population working in agricultural field and the related data.

Released Under : National Data Sharing and Accessibility Policy (NDSAP)

Contributor : Ministry of Home Affairs Department of Home Registrar General and Census Commissioner, India

Sectors : Population Enumerator, Census, Census and Surveys

ANALYSIS

```
#libraries
library("ggplot2")
library("astsa")
library("matrixStats")
library("dplyr"")

mydata <- read.csv("PCA0705_New_Delhi-2001.csv")

head(mydata)
```

Console | Terminal | Jobs

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```
> head(mydata)
  State.Code District.Code Sub.Distt Town..Village.Code Ward.Code Enumeration.Block.Code    Level             Name
1          7             5         0                  0         0                      0 DISTRICT         New Delhi
2          7             5         0                  0         0                      0 DISTRICT         New Delhi
3          7             5         0                  0         0                      0 DISTRICT         New Delhi
4          7             5         1                  0         0                      0   TEHSIL Parliament Street
5          7             5         1                  0         0                      0   TEHSIL Parliament Street
6          7             5         1                  0         0                      0   TEHSIL Parliament Street
  Total..Rural..Urban No.of.Households Total.Population...Persons Total.Population...Males Total.Population...Females
1               Total            39633                     179112                   99956                       79156
2               Rural                0                          0                       0                           0
3               Urban            39633                     179112                   99956                       79156
4               Total            12408                      59132                   32562                       26570
5               Rural                0                          0                       0                           0
6               Urban            12408                      59132                   32562                       26570
  Population.in.the.Age.Group.0.6...Persons Population.in.the.Age.Group.0.6...Males
1                                     21496                                   11327
2                                         0                                       0
3                                     21496                                   11327
4                                      6340                                    3388
5                                         0                                       0
6                                      6340                                    3388
  Population.in.the.Age.Group.0.6.Females Scheduled.Castes.Population...Persons Scheduled.Castes.Population...Males
1                                   10169                                39803                                21706
2                                       0                                    0                                    0
3                                   10169                                39803                                21706
4                                    2952                                12072                                 6501
5                                       0                                    0                                    0
6                                    2952                                12072                                 6501
  Scheduled.Castes.Population...Females Scheduled.Tribes.Population...Persons Scheduled.Tribes.Population...Males
1                                 18097                                    0                                    0
2                                     0                                    0                                    0
3                                 18097                                    0                                    0
4                                  5571                                    0                                    0
5                                     0                                    0                                    0
6                                  5571                                    0                                    0
  Scheduled.Tribes.Population...Females Literates.Population...Persons Literates.Population...Males
1                                     0                         131196                       78540
2                                     0                              0                           0
3                                     0                         131196                       78540
4                                     0                          45888                       26743
5                                     0                              0                           0
6                                     0                          45888                       26743
  Literates.Population...Females Illiterate...Persons Illiterate...Males Illiterate...Females
1                          52656                47916                21416                26500
2                              0                    0                    0                    0
3                          52656                47916                21416                26500
4                          19145                13244                 5819                 7425
5                              0                    0                    0                    0
6                          19145                13244                 5819                 7425
  Total.Worker.Population...Persons Total.Worker.Population...Males Total.Worker.Population...Females
1                             67594                           55226                             12368
2                                 0                               0                                 0
3                             67594                           55226                             12368
4                             21356                           17145                              4211
5                                 0                               0                                 0
6                             21356                           17145                              4211
  Main.Worker.Population...Persons Main.Worker.Population...Males Main.Worker.Population...Females
1                            64425                          52783                            11642
2                                0                              0                                0
3                            64425                          52783                            11642
4                            20710                          16636                             4074
5                                0                              0                                0
6                            20710                          16636                             4074
  Main.Cultivator.Population...Persons Main.Cultivator.Population...Males Main.Cultivator.Population...Females
1                                   96                                71                                   25
2                                    0                                 0                                    0
3                                   96                                71                                   25
4                                   21                                11                                   10
5                                    0                                 0                                    0
6                                   21                                11                                   10
```

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```
  Main.Agricultural.Labourers.Population...Persons Main.Agricultural.Labourers.Population...Males
1                                               71                                             43
2                                                0                                              0
3                                               71                                             43
4                                               29                                             16
5                                                0                                              0
6                                               29                                             16
  Main.Agricultural.Labourers.Population...Females Main.Household.Industries.Population...Persons
1                                               28                                            1007
2                                                0                                               0
3                                               28                                            1007
4                                               13                                             156
5                                                0                                               0
6                                               13                                             156
  Main.Household.Industries.Population...Males Main.Household.Industries.Population...Females
1                                          778                                            229
2                                            0                                              0
3                                          778                                            229
4                                          136                                             20
5                                            0                                              0
6                                          136                                             20
  Main.Other.Workers.Population...Persons Main.Other.Workers.Population...Males Main.Other.Workers.Population...Females
1                                   63251                                 51891                                   11360
2                                       0                                     0                                       0
3                                   63251                                 51891                                   11360
4                                   20504                                 16473                                    4031
5                                       0                                     0                                       0
6                                   20504                                 16473                                    4031
  Marginal.Worker.Population...Persons Marginal.Worker.Population...Males Marginal.Worker.Population...Females
1                                 3169                               2443                                 726
2                                    0                                  0                                   0
3                                 3169                               2443                                 726
4                                  646                                509                                 137
5                                    0                                  0                                   0
6                                  646                                509                                 137
  Marginal.Cultivator.Population...Persons Marginal.Cultivator.Population...Males
1                                        9                                     3
2                                        0                                     0
3                                        9                                     3
4                                        1                                     0
5                                        0                                     0
6                                        1                                     0
  Marginal.Cultivator.Population...Females Marginal.Agriculture.Labourers.Population...Persons
1                                        6                                                13
2                                        0                                                 0
3                                        6                                                13
4                                        1                                                 1
5                                        0                                                 0
6                                        1                                                 1
  Marginal.Agriculture.Labourers.Population...Males Marginal.Agriculture.Labourers.Population...Females
1                                                 7                                                   6
2                                                 0                                                   0
3                                                 7                                                   6
4                                                 1                                                   0
5                                                 0                                                   0
6                                                 1                                                   0
```

```
  Marginal.Household.Industries.Population...Persons Marginal.Household.Industries.Population...Males
1                                                 66                                               33
2                                                  0                                                0
3                                                 66                                               33
4                                                 13                                                7
5                                                  0                                                0
6                                                 13                                                7
  Marginal.Household.Industries.Population...Females Marginal.Other.Workers.Population...Persons
1                                                  33                                       3081
2                                                   0                                          0
3                                                  33                                       3081
4                                                   6                                        631
5                                                   0                                          0
6                                                   6                                        631
  Marginal.Other.Workers.Population...Males Marginal.Other.Workers.Population...Females Non.Worker.Population...Persons
1                                      2400                                        681                           111518
2                                         0                                          0                                0
3                                      2400                                        681                           111518
4                                       501                                        130                            37776
5                                         0                                          0                                0
6                                       501                                        130                            37776
  Non.Worker.Population...Males Non.Worker.Population...Females
1                         44730                           66788
2                             0                               0
3                         44730                           66788
4                         15417                           22359
5                             0                               0
6                         15417                           22359
> 
```

summary(mydata)

```
> summary(mydata)
   State.Code District.Code   Sub.Distt     Town..Village.Code   Ward.Code     Enumeration.Block.Code    Level
 Min.   :7    Min.   :5     Min.   :0.000   Min.   :       0   Min.   :0.000   Min.   :0              Length:28
 1st Qu.:7    1st Qu.:5     1st Qu.:1.000   1st Qu.:       0   1st Qu.:0.000   1st Qu.:0              Class :character
 Median :7    Median :5     Median :2.000   Median :40501000   Median :0.000   Median :0              Mode  :character
 Mean   :7    Mean   :5     Mean   :1.786   Mean   :23143643   Mean   :1.464   Mean   :0
 3rd Qu.:7    3rd Qu.:5     3rd Qu.:2.250   3rd Qu.:40501000   3rd Qu.:2.250   3rd Qu.:0
 Max.   :7    Max.   :5     Max.   :3.000   Max.   :40503000   Max.   :9.000   Max.   :0
     Name           Total..Rural..Urban No.of.Households Total.Population...Persons Total.Population...Males
 Length:28          Length:28           Min.   :    0    Min.   :     0            Min.   :    0
 Class :character   Class :character    1st Qu.: 1513    1st Qu.:  7136            1st Qu.: 3866
 Mode  :character   Mode  :character    Median : 4762    Median : 22312            Median :12222
                                        Mean   : 8493    Mean   : 38381            Mean   :21419
                                        3rd Qu.:12408    3rd Qu.: 59132            3rd Qu.:32562
                                        Max.   :39633    Max.   :179112            Max.   :99956
 Total.Population...Females Population.in.the.Age.Group.0.6...Persons Population.in.the.Age.Group.0.6...Males
 Min.   :    0              Min.   :    0                            Min.   :    0.0
 1st Qu.: 3270              1st Qu.:  788                            1st Qu.:  420.5
 Median :10090              Median : 2686                            Median : 1357.0
 Mean   :16962              Mean   : 4606                            Mean   : 2427.2
 3rd Qu.:26570              3rd Qu.: 6340                            3rd Qu.: 3388.0
 Max.   :79156              Max.   :21496                            Max.   :11327.0
 Population.in.the.Age.Group.0.6.Females Scheduled.Castes.Population...Persons Scheduled.Castes.Population...Males
 Min.   :    0.0                         Min.   :    0                       Min.   :    0
 1st Qu.:  367.5                         1st Qu.: 1245                       1st Qu.:  657
 Median : 1329.0                         Median : 5352                       Median : 2866
 Mean   : 2179.1                         Mean   : 8529                       Mean   : 4651
 3rd Qu.: 2952.0                         3rd Qu.:12072                       3rd Qu.: 6501
 Max.   :10169.0                         Max.   :39803                       Max.   :21706
 Scheduled.Castes.Population...Females Scheduled.Tribes.Population...Persons Scheduled.Tribes.Population...Males
 Min.   :    0.0                       Min.   :0                           Min.   :0
 1st Qu.:  588.2                       1st Qu.:0                           1st Qu.:0
 Median : 2482.5                       Median :0                           Median :0
 Mean   : 3877.9                       Mean   :0                           Mean   :0
 3rd Qu.: 5571.0                       3rd Qu.:0                           3rd Qu.:0
 Max.   :18097.0                       Max.   :0                           Max.   :0
 Scheduled.Tribes.Population...Females Literates.Population...Persons Literates.Population...Males
 Min.   :0                             Min.   :    0                  Min.   :    0
 1st Qu.:0                             1st Qu.:  5470                 1st Qu.: 3193
 Median :0                             Median : 17020                 Median : 9931
 Mean   :0                             Mean   : 28113                 Mean   :16830
 3rd Qu.:0                             3rd Qu.: 45888                 3rd Qu.:26743
 Max.   :0                             Max.   :131196                 Max.   :78540
 Literates.Population...Females Illiterate...Persons Illiterate...Males Illiterate...Females
 Min.   :    0                  Min.   :    0        Min.   :    0.0    Min.   :    0
 1st Qu.: 1468                  1st Qu.: 1600        1st Qu.:  673.5    1st Qu.:  917
 Median : 7056                  Median : 6612        Median : 2874.5    Median : 3601
 Mean   :11283                  Mean   :10268        Mean   : 4589.1    Mean   : 5679
 3rd Qu.:19145                  3rd Qu.:13560        3rd Qu.: 6168.2    3rd Qu.: 7425
 Max.   :52656                  Max.   :47916        Max.   :21416.0    Max.   :26500
 Total.Worker.Population...Persons Total.Worker.Population...Males Total.Worker.Population...Females
 Min.   :    0                     Min.   :    0                    Min.   :    0.0
 1st Qu.: 2671                     1st Qu.: 2014                    1st Qu.:  334.8
 Median : 8336                     Median : 6590                    Median : 1720.0
 Mean   :14484                     Mean   :11834                    Mean   : 2650.3
 3rd Qu.:21356                     3rd Qu.:17145                    3rd Qu.: 4211.0
 Max.   :67594                     Max.   :55226                    Max.   :12368.0
 Main.Worker.Population...Persons Main.Worker.Population...Males Main.Worker.Population...Females
 Min.   :    0                    Min.   :    0                   Min.   :    0.0
 1st Qu.: 2587                    1st Qu.: 1965                   1st Qu.:  292.5
 Median : 8066                    Median : 6388                   Median : 1661.0
 Mean   :13805                    Mean   :11311                   Mean   : 2494.7
 3rd Qu.:20710                    3rd Qu.:16636                   3rd Qu.: 4074.0
 Max.   :64425                    Max.   :52783                   Max.   :11642.0
 Main.Cultivator.Population...Persons Main.Cultivator.Population...Males Main.Cultivator.Population...Females
 Min.   : 0.00                        Min.   : 0.00                      Min.   : 0.000
 1st Qu.: 1.75                        1st Qu.: 1.75                      1st Qu.: 0.000
 Median : 9.50                        Median : 5.00                      Median : 2.500
 Mean   :20.57                        Mean   :15.21                      Mean   : 5.357
 3rd Qu.:21.50                        3rd Qu.:15.00                      3rd Qu.:10.000
 Max.   :96.00                        Max.   :71.00                      Max.   :25.000
 Main.Agricultural.Labourers.Population...Persons Main.Agricultural.Labourers.Population...Males
 Min.   : 0.00                                    Min.   : 0.000
 1st Qu.: 1.00                                    1st Qu.: 1.000
 Median : 5.00                                    Median : 3.500
 Mean   :15.21                                    Mean   : 9.214
 3rd Qu.:28.00                                    3rd Qu.:15.000
 Max.   :71.00                                    Max.   :43.000
 Main.Agricultural.Labourers.Population...Females Main.Household.Industries.Population...Persons
 Min.   : 0                                       Min.   :   0.0
 1st Qu.: 0                                       1st Qu.:  22.5
 Median : 2                                       Median : 126.0
 Mean   : 6                                       Mean   : 215.8
 3rd Qu.:13                                       3rd Qu.: 327.5
 Max.   :28                                       Max.   :1007.0
 Main.Household.Industries.Population...Males Main.Household.Industries.Population...Females
 Min.   :  0.00                               Min.   :  0.00
 1st Qu.: 15.75                               1st Qu.:  4.25
 Median : 98.50                               Median : 16.00
 Mean   :166.71                               Mean   : 49.07
 3rd Qu.:251.75                               3rd Qu.: 66.00
 Max.   :778.00                               Max.   :229.00
```

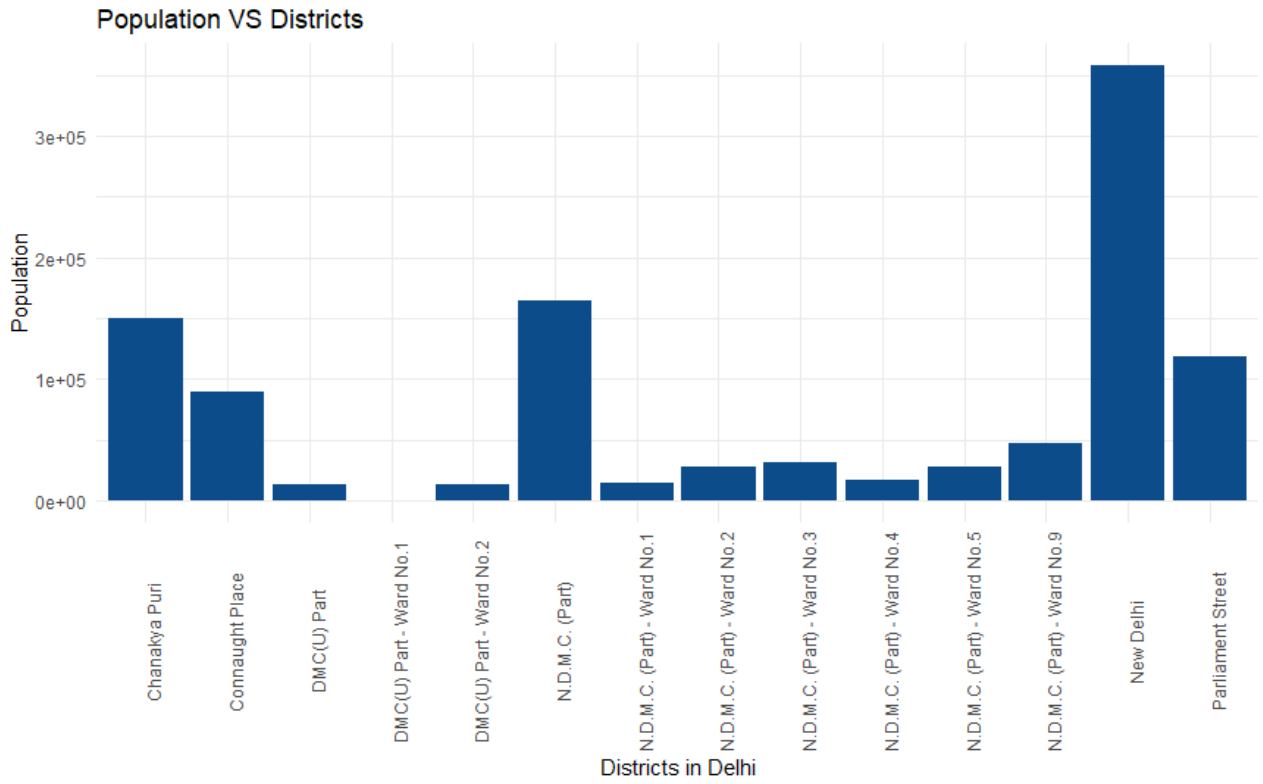
```
Main.Other.Workers.Population...Persons Main.Other.Workers.Population...Males Main.Other.Workers.Population...Females
Min.    :    0                          Min.    :    0                         Min.    :    0.0
1st Qu.: 2523                           1st Qu.: 1943                          1st Qu.:  283.5
Median : 7872                           Median : 6242                          Median : 1622.0
Mean   :13554                           Mean   :11120                          Mean   : 2434.3
3rd Qu.:20504                           3rd Qu.:16473                          3rd Qu.: 4031.0
Max.   :63251                           Max.   :51891                          Max.   :11360.0
Marginal.Worker.Population...Persons Marginal.Worker.Population...Males Marginal.Worker.Population...Females
Min.    :   0.00                     Min.    :   0.0                     Min.    :  0.00
1st Qu.:  58.75                      1st Qu.:  40.5                      1st Qu.: 18.25
Median : 394.00                      Median : 319.0                      Median : 72.00
Mean   : 679.07                      Mean   : 523.5                      Mean   :155.57
3rd Qu.: 998.00                      3rd Qu.: 790.0                      3rd Qu.:208.00
Max.   :3169.00                      Max.   :2443.0                      Max.   :726.00
Marginal.Cultivator.Population...Persons Marginal.Cultivator.Population...Males
Min.   :0.000                        Min.   :0.0000
1st Qu.:0.000                        1st Qu.:0.0000
Median :1.000                        Median :0.0000
Mean   :1.929                        Mean   :0.6429
3rd Qu.:3.000                        3rd Qu.:1.0000
Max.   :9.000                        Max.   :3.0000
Marginal.Cultivator.Population...Females Marginal.Agriculture.Labourers.Population...Persons
Min.   :0.000                        Min.   : 0.000
1st Qu.:0.000                        1st Qu.: 0.000
Median :1.000                        Median : 1.000
Mean   :1.286                        Mean   : 2.786
3rd Qu.:2.000                        3rd Qu.: 4.250
Max.   :6.000                        Max.   :13.000
Marginal.Agriculture.Labourers.Population...Males Marginal.Agriculture.Labourers.Population...Females
Min.   :0.0                                       Min.   :0.000
1st Qu.:0.0                                       1st Qu.:0.000
Median :1.0                                       Median :0.000
Mean   :1.5                                       Mean   :1.286
3rd Qu.:2.0                                       3rd Qu.:0.750
Max.   :7.0                                       Max.   :6.000
Marginal.Household.Industries.Population...Persons Marginal.Household.Industries.Population...Males
Min.   : 0.00                                      Min.   : 0.000
1st Qu.: 0.75                                      1st Qu.: 0.000
Median : 9.00                                      Median : 5.500
Mean   :14.14                                      Mean   : 7.071
3rd Qu.:24.50                                      3rd Qu.:11.000
Max.   :66.00                                      Max.   :33.000
Marginal.Household.Industries.Population...Females Marginal.Other.Workers.Population...Persons
Min.   : 0.000                                     Min.   :   0.00
1st Qu.: 0.000                                     1st Qu.:  57.25
Median : 4.000                                     Median : 387.00
Mean   : 7.071                                     Mean   : 660.21
3rd Qu.:12.000                                     3rd Qu.: 963.00
Max.   :33.000                                     Max.   :3081.00
Marginal.Other.Workers.Population...Males Marginal.Other.Workers.Population...Females Non.Worker.Population...Persons
Min.   :   0.00                           Min.   :  0.0                               Min.   :    0
1st Qu.:  39.75                           1st Qu.: 17.5                               1st Qu.: 4675
Median : 307.50                           Median : 66.5                               Median : 13976
Mean   : 514.29                           Mean   :145.9                               Mean   : 23897
3rd Qu.: 769.00                           3rd Qu.:194.0                               3rd Qu.: 37776
Max.   :2400.00                           Max.   :681.0                               Max.   :111518
```

```
Non.Worker.Population...Males Non.Worker.Population...Females
Min.   :    0                 Min.   :    0
1st Qu.: 1870                 1st Qu.: 2805
Median : 5632                 Median : 8344
Mean   : 9585                 Mean   :14312
3rd Qu.:15417                 3rd Qu.:22359
Max.   :44730                 Max.   :66788
> 
```

GRAPHS

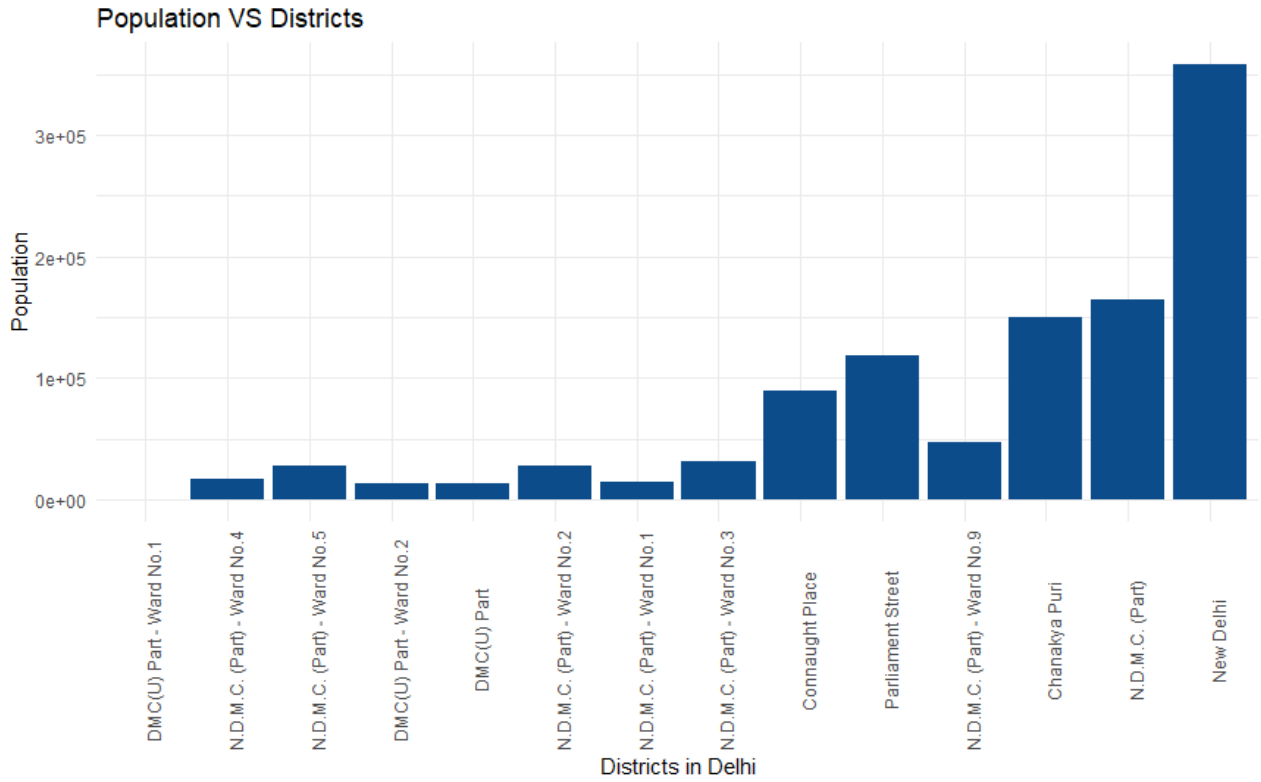
1- TOTAL POPULATION IN DELHI

```
#libraries used
library("ggplot2")
library("astsa")
library("matrixStats")
library("dplyr"")

mydata <- read.csv("PCA0705_New_Delhi-2001.csv")

#graph of population vs district

ggplot(mydata) +
  aes(x = Name, weight = Total.Population...Persons) +
  geom_bar(fill = "#0c4c8a") +
  labs(x = "Districts in Delhi", y = "Population", title = "Population VS Districts")+
theme_minimal() +
theme(axis.text.x = element_text(angle = 90))
```



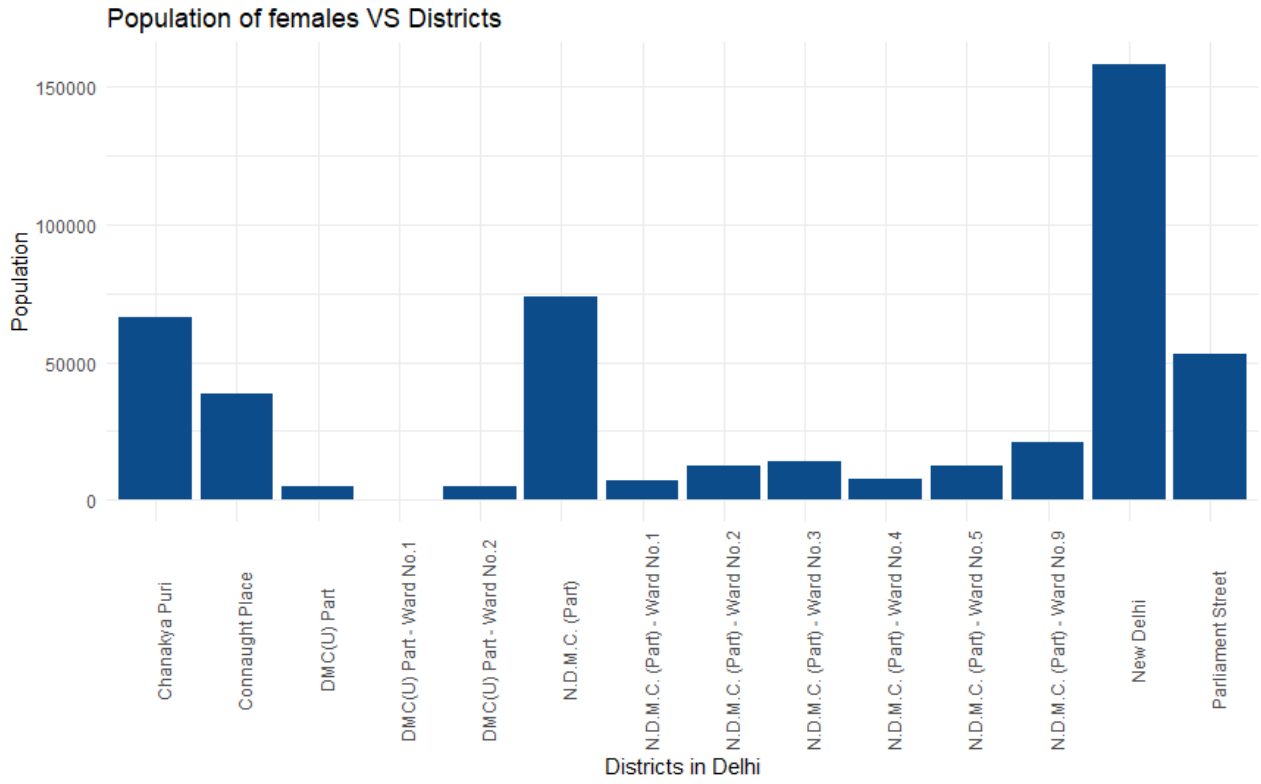
2- TOTAL POPULATION IN DELHI (SORTED)

```
#graph of population vs district sorted


ggplot(mydata, aes(reorder(Name,Total.Population...Persons),Total.Population...Persons))  +
  geom_col(fill = "#0c4c8a") +
  labs(x = "Districts in Delhi", y = "Population", title = "Population VS
Districts")+theme_minimal() +
  theme(axis.text.x = element_text(angle = 90))
```



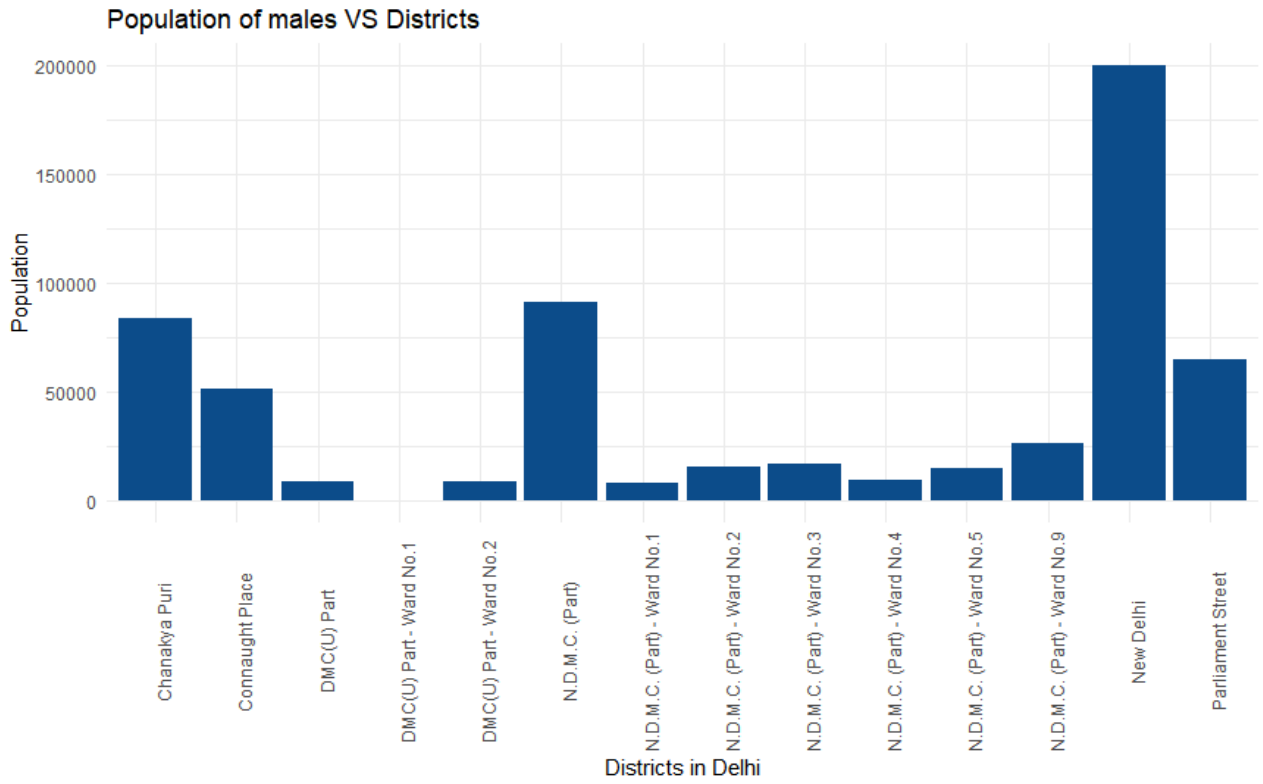
3- TOTAL POPULATION OF FEMALES IN DELHI

```
#graph of total population of females in each district

ggplot(mydata) +
  aes(x = Name, weight = Total.Population...Females) +
  geom_bar(fill = "#0c4c8a") +
  labs(x = "Districts in Delhi", y = "Population", title = "Population of females VS
Districts")+theme_minimal() +
  theme(axis.text.x = element_text(angle = 90))
```



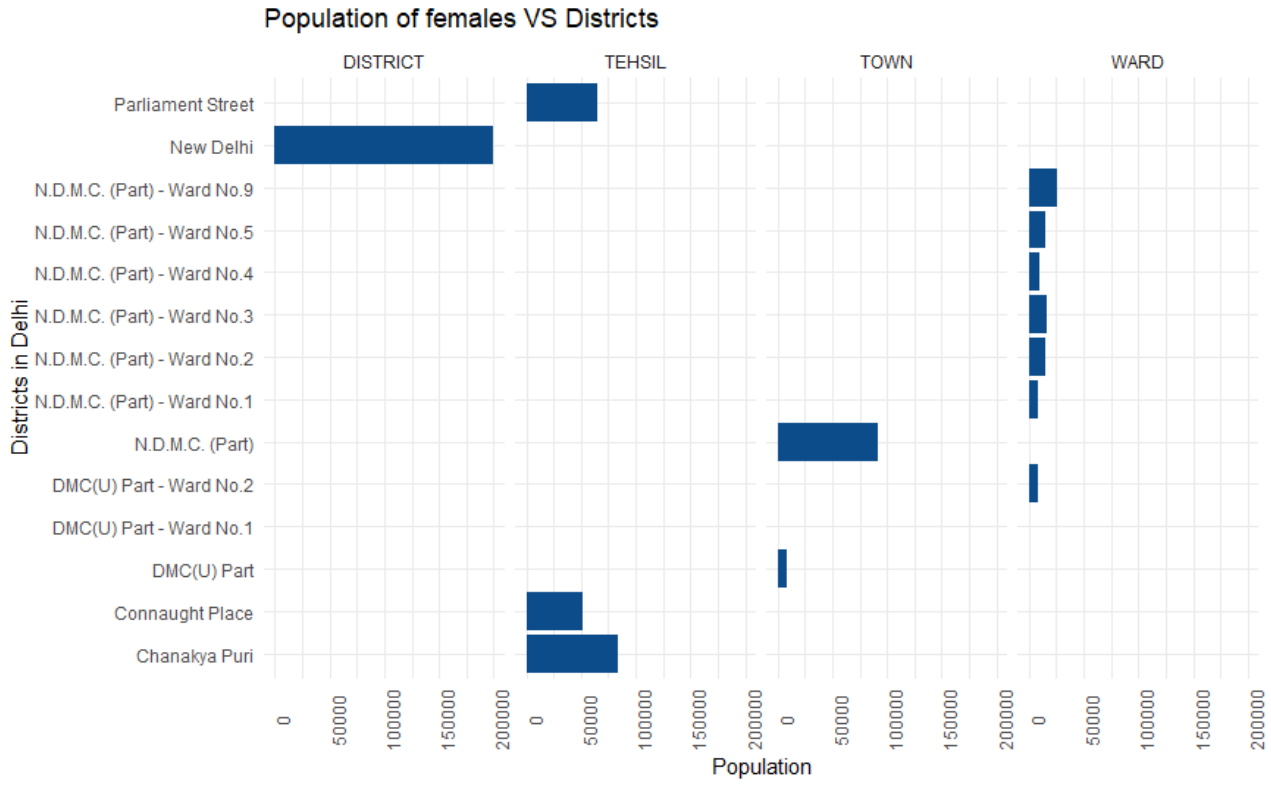
4- TOTAL POPULATION OF MALES IN DELHI

```
#graph of total population of Males in each district

ggplot(mydata) +
  aes(x = Name, weight = Total.Population...Males) +
  geom_bar(fill = "#0c4c8a") +
  labs(x = "Districts in Delhi", y = "Population", title = "Population of females VS
Districts")+theme_minimal() +
  theme(axis.text.x = element_text(angle = 90))
```



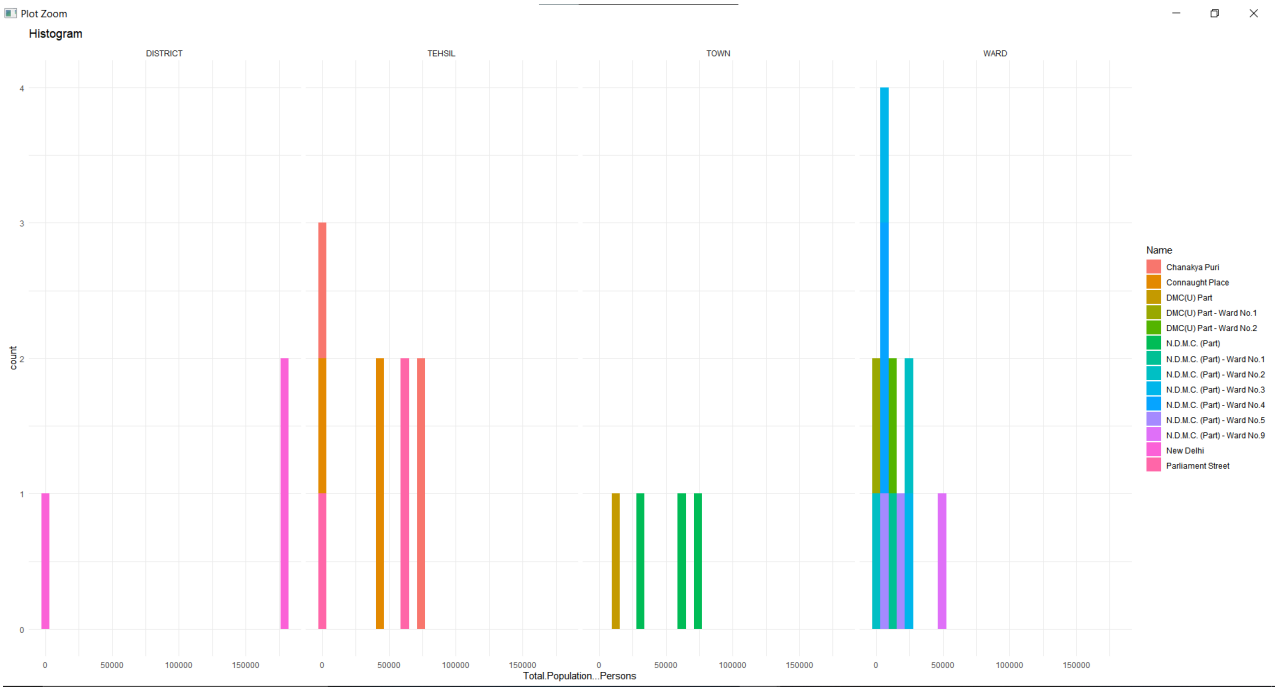
5- TOTAL POPULATION OF EACH AREA IN TERMS OF LEVEL

```
#graph of total population vs district in terms of levels

ggplot(mydata) +
  aes(x = Name, weight = Total.Population...Males) +
  geom_bar(fill = "#0c4c8a") + coord_flip() +
  labs(x = "Districts in Delhi", y = "Population", title = "Population of females VS
Districts")+theme_minimal() +
  theme(axis.text.x = element_text(angle = 90))+facet_grid(vars(), vars(Level))
```



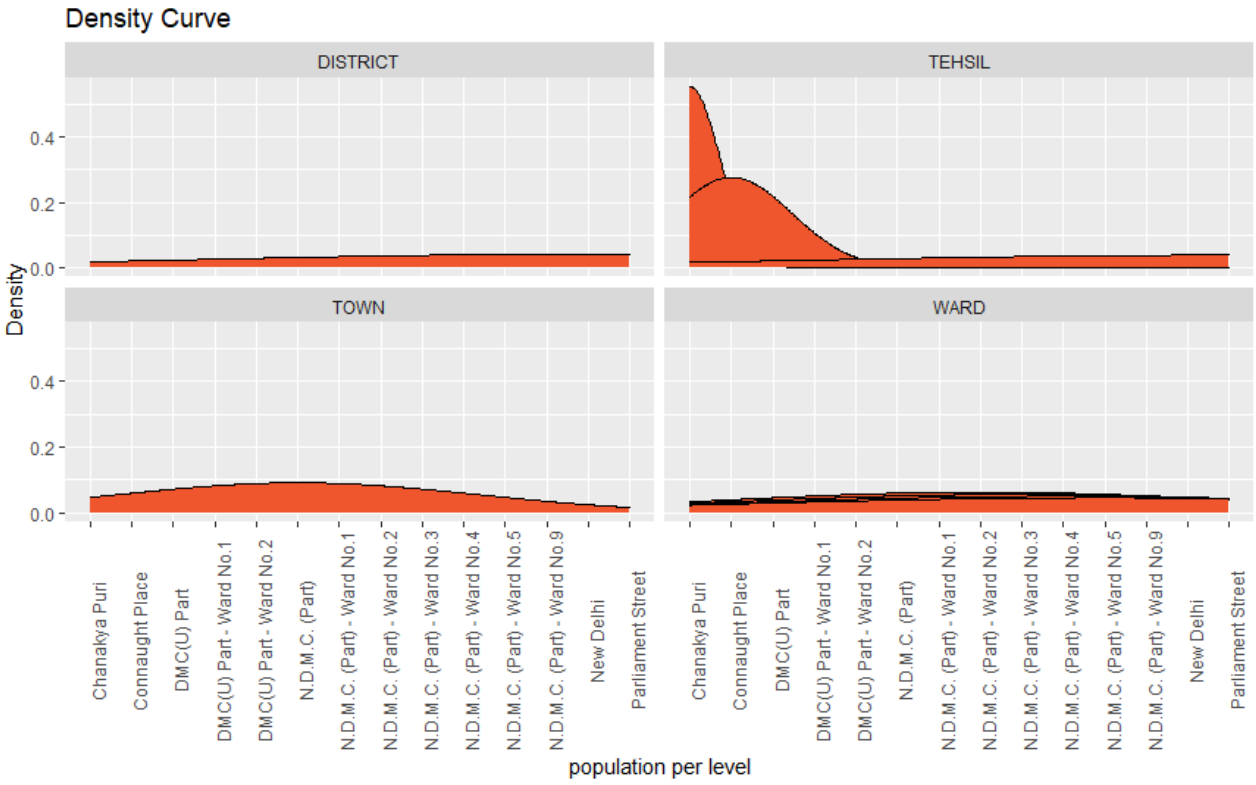
6- HISTOGRAM FOR TOTAL POPULATION OF EACH AREA IN TERMS OF LEVEL

```
#histogram
ggplot(mydata) +
  aes(x = Total.Population...Persons, fill = Name) +
  geom_histogram(bins = 30L) +
  labs(title = "Histogram") +
  scale_fill_hue() +
  theme_minimal() +
  facet_grid(vars(), vars(Level))
```



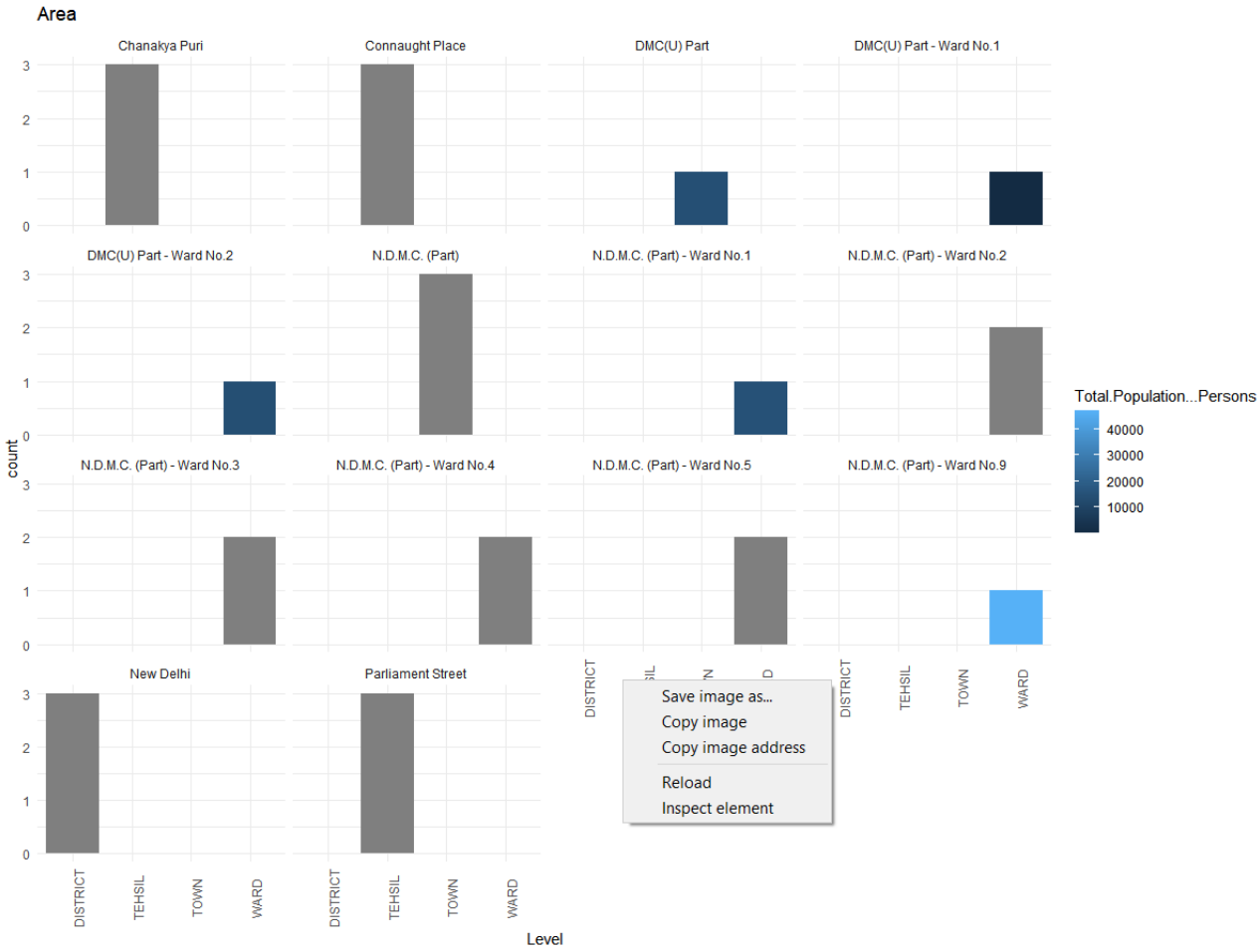
7- POPULATION DENSITY IN EACH LEVEL OF THE STATE

```
#density
ggplot(mydata) +
  aes(x = Name) +
  geom_density(adjust = 1L, fill = "#ef562d") +
  labs(x = "population per level", y = "Density", title = "Density Curve") +
  theme(axis.text.x = element_text(angle = 90)) +
  facet_wrap(vars(Level))
```



8- AREA PLOT OF LEVEL-WISE POPULATION IN DELHI

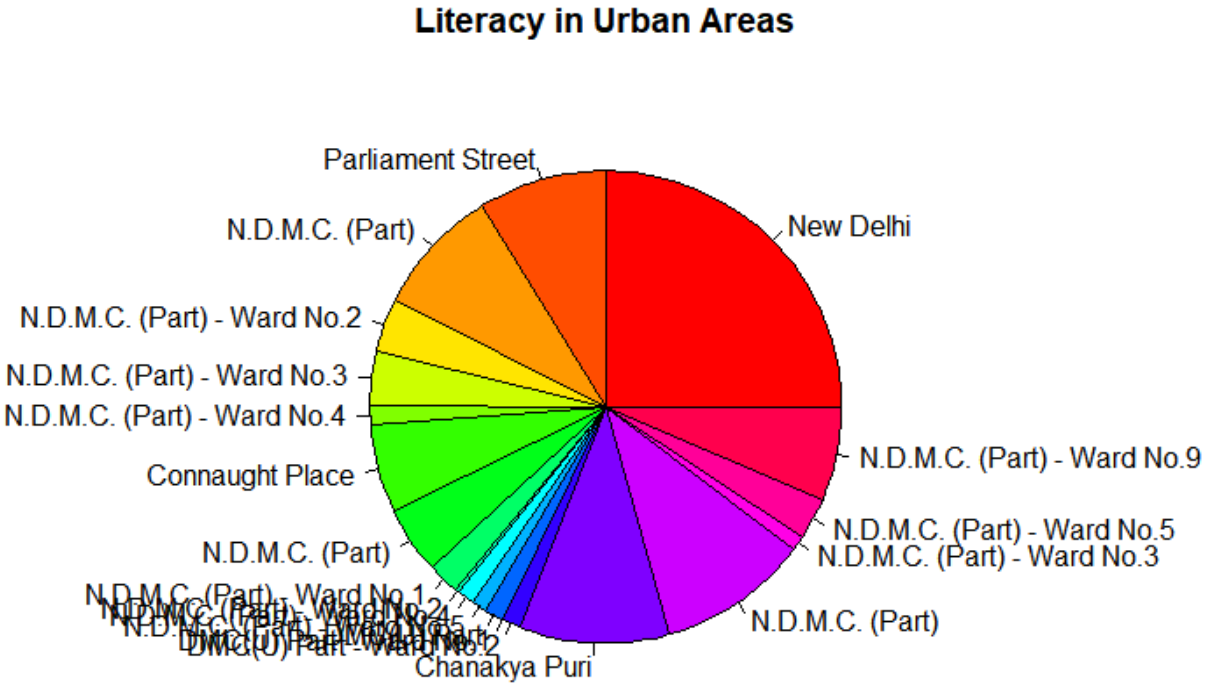
```
#area plot
ggplot(mydata) +
  aes(x = Level, fill = Total.Population...Persons) +
  geom_bar() +
  labs(title = "Area") +
  scale_fill_gradient() +
  theme_minimal() +
  facet_wrap(vars(Name)) +
  theme(axis.text.x = element_text(angle = 90))
```



9- LITERACY AND ILLITERACY ANALYSIS

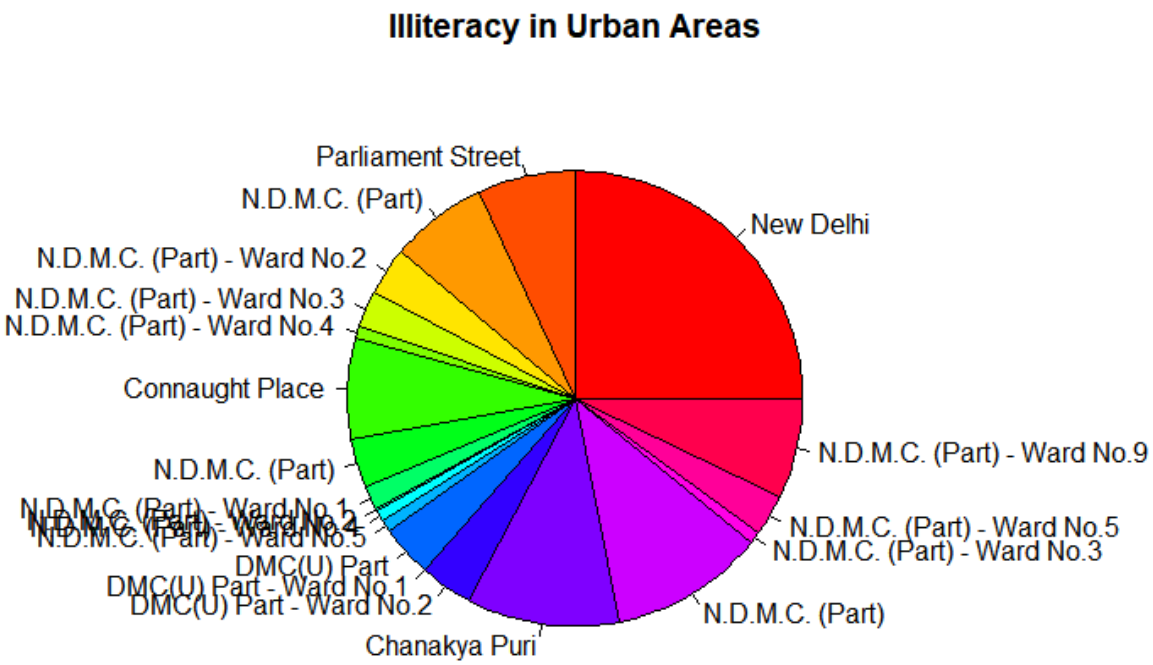
PIE-CHART SHOWING LITERACY RATE IN EACH DISTRICT

```
#Literacy rate in each district
#pie chart
dataset <- as.data.frame(mydata,stringasfactors=FALSE)
# calculating mean of col2 based on col1 group

dataset2 <- (subset(dataset,dataset$Total..Rural..Urban=="Urban"))
data <- aggregate(dataset2$Illiterate...Persons,
                  by=list(dataset2$Name), FUN=sum)
print(data)

pie(dataset2$Illiterate...Persons, dataset2$Name,col =
rainbow(length(dataset2$Illiterate...Persons)),
    main = "Illiteracy in Urban Areas", cex.lab = 2)
```



PIE-CHART SHOWING ILLITERACY RATE IN EACH DISTRICT

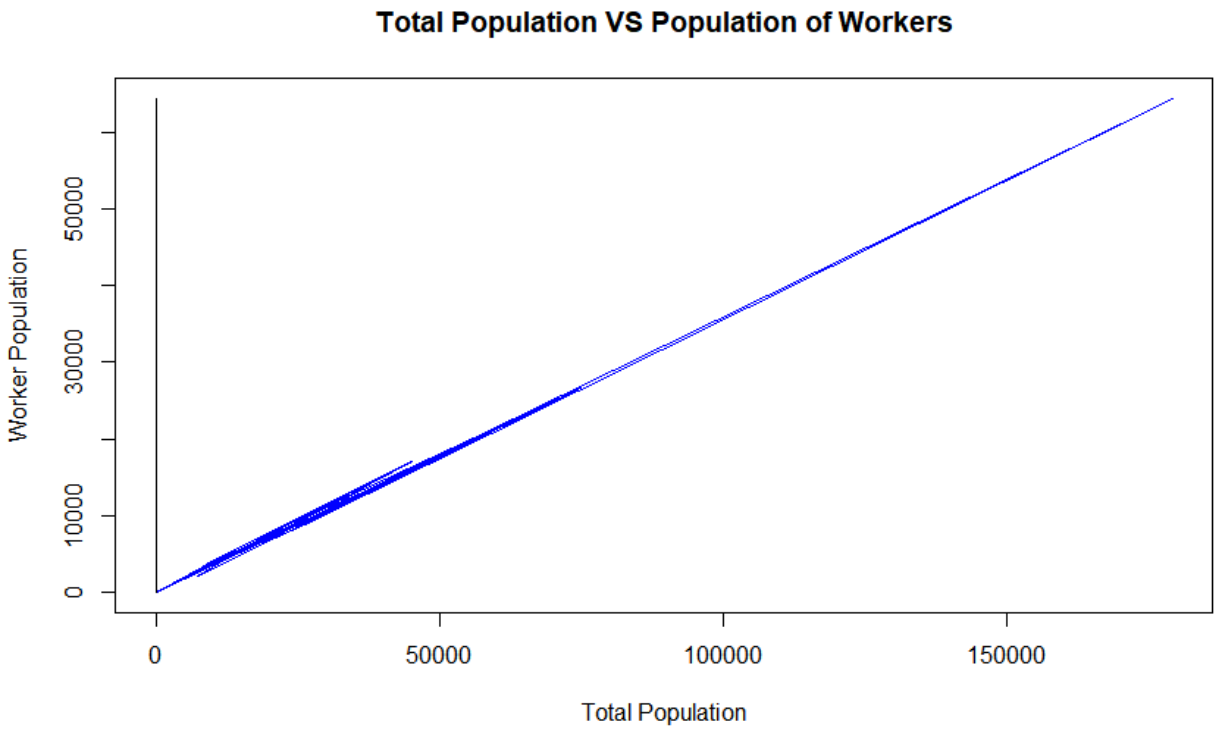
```
#Illiteracy rate in each district
dataset <- as.data.frame(mydata,stringasfactors=FALSE)
# calculating mean of col2 based on col1 group

dataset2 <- (subset(dataset,dataset$Total..Rural..Urban=="Urban"))
data <- aggregate(dataset2$Literates.Population...Persons,
                  by=list(dataset2$Name), FUN=sum)
print(data)

pie(dataset2$Literates.Population...Persons, dataset2$Name,col =
rainbow(length(dataset2$Literates.Population...Persons)),
    main = "Literacy in Urban Areas")
```



10- WORKERS AND NON-WORKERS ANALYSIS

RATIO OF POPULATION OF WORKERS TO TOTAL POPULATION

```
#Total Population VS Population of Workers
plot(mydata$Total.Population...Persons,mydata$Main.Worker.Population...Persons, xlab="Total
Population",ylab="Worker Population",main="Total Population VS Population of Workers",type="l",
     col="blue")
lines(mydata$Main.Worker.Population...Persons)
```



11- POINT-PLOT FOR TOTAL WORKING POPULATION WITH TOTAL POPULATION OF EACH AREA IN TERMS OF LEVEL

```
#point plot
ggplot(mydata) +
  aes(x = Total.Population...Persons, y =
Total.Worker.Population...Persons, colour = Name) +
  geom_point(size = 2L) +
  labs(title = "Point") +
  scale_color_hue() +
  theme_dark() +
  facet_grid(vars(Level), vars())
```