

FML_1

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9/11/2022

```
#source:https://www.kaggle.com/datasets/iamsouravbanerjee/world-population-dataset
#importing data set into R
dataset1<-read.csv("C:/Users/desineni/Downloads/world_population.csv")

#descriptive statistics
summary(dataset1)
```

```
##      Rank      CCA3      Country      Capital
## Min.   : 1.00   Length:234   Length:234   Length:234
## 1st Qu.: 59.25  Class :character  Class :character  Class :character
## Median :117.50  Mode  :character  Mode  :character  Mode  :character
## Mean   :117.50
## 3rd Qu.:175.75
## Max.   :234.00
## Continent      X2022.Population      X2020.Population      X2015.Population
## Length:234      Min.   :5.100e+02      Min.   :5.200e+02      Min.   :5.640e+02
## Class :character  1st Qu.:4.197e+05      1st Qu.:4.153e+05      1st Qu.:4.047e+05
## Mode  :character  Median :5.560e+06      Median :5.493e+06      Median :5.307e+06
## Mean   :3.407e+07      Mean   :3.350e+07      Mean   :3.173e+07
## 3rd Qu.:2.248e+07      3rd Qu.:2.145e+07      3rd Qu.:1.973e+07
## Max.   :1.426e+09      Max.   :1.425e+09      Max.   :1.394e+09
## X2010.Population      X2000.Population      X1990.Population
## Min.   :5.960e+02      Min.   :6.510e+02      Min.   :7.000e+02
## 1st Qu.:3.931e+05      1st Qu.:3.272e+05      1st Qu.:2.641e+05
## Median :4.943e+06      Median :4.293e+06      Median :3.825e+06
## Mean   :2.985e+07      Mean   :2.627e+07      Mean   :2.271e+07
## 3rd Qu.:1.916e+07      3rd Qu.:1.576e+07      3rd Qu.:1.187e+07
## Max.   :1.348e+09      Max.   :1.264e+09      Max.   :1.154e+09
## X1980.Population      X1970.Population      Area..kmÂ².      Density..per.kmÂ².
## Min.   : 733      Min.   : 752      Min.   : 1      Min.   : 0.026
## 1st Qu.: 229614      1st Qu.: 155997      1st Qu.: 2650      1st Qu.: 38.418
## Median : 3141146      Median : 2604830      Median : 81200      Median : 95.347
## Mean   : 18984617      Mean   : 15786909      Mean   : 581449      Mean   : 452.127
## 3rd Qu.: 9826054      3rd Qu.: 8817329      3rd Qu.: 430426      3rd Qu.: 238.933
## Max.   :982372466      Max.   :822534450      Max.   :17098242      Max.   :23172.267
## Growth.Rate      World.Population.Percentage
## Min.   :0.912      Min.   : 0.0000
## 1st Qu.:1.002      1st Qu.: 0.0100
## Median :1.008      Median : 0.0700
## Mean   :1.010      Mean   : 0.4271
```

```
## 3rd Qu.:1.017 3rd Qu.: 0.2800
## Max. :1.069 Max. :17.8800
```

```
x=mean(dataset1$X2020.Population)
y=median(dataset1$X2020.Population)
z=sd(dataset1$X2020.Population)

#transforming variable

transformed_population=(dataset1$X2020.Population-y)/z +x

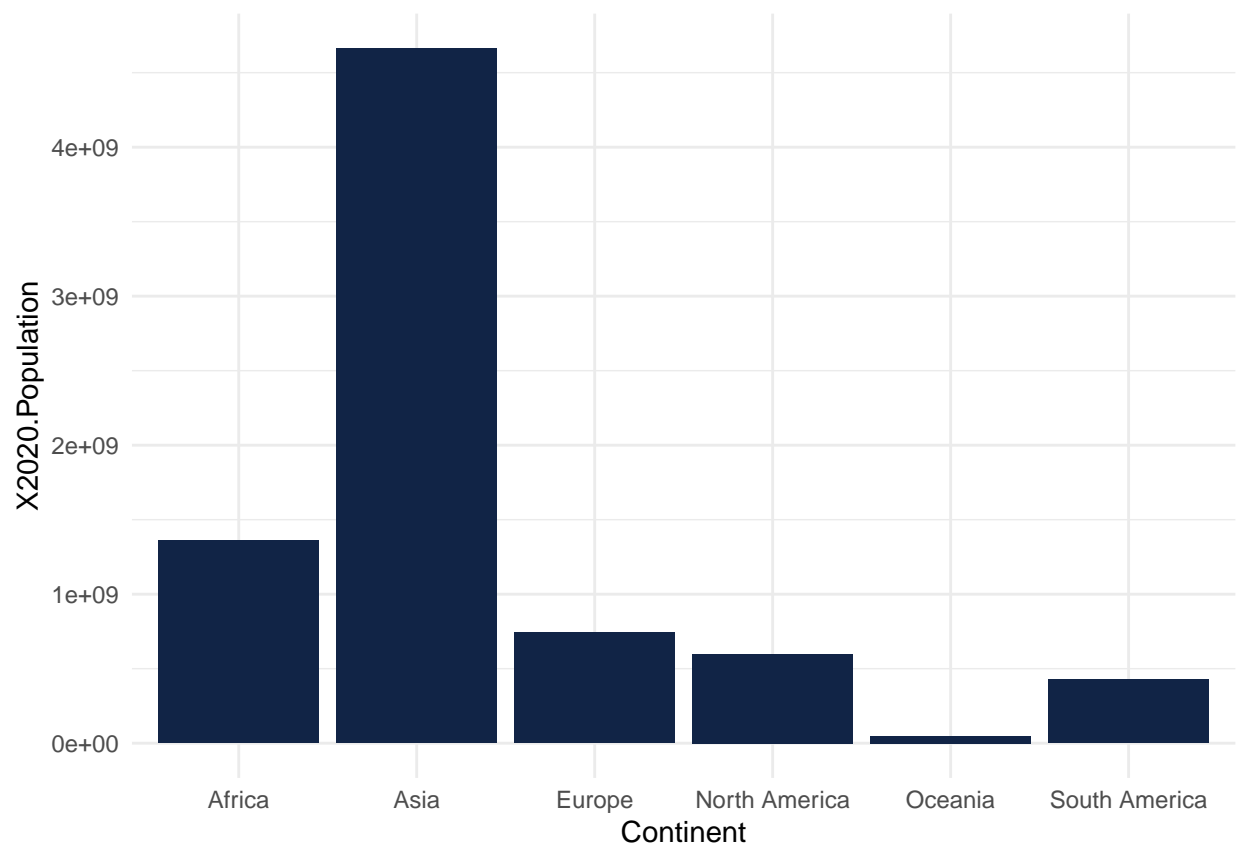
#plots

library(esquisse)
```

```
## Warning: package 'esquisse' was built under R version 4.1.3
```

```
library(ggplot2)

ggplot(dataset1) +
  aes(x = Continent, y = X2020.Population) +
  geom_col(fill = "#112446") +
  theme_minimal()
```



```
library(ggplot2)

ggplot(dataset1) +
  aes(x = Area..kmÂ²., y = X2022.Population) +
  geom_point(shape = "circle", size = 1.5,
            colour = "#112446") +
  theme_minimal()
```

