

Assignments for session on "BASIC STATISTICS"

1. Write a program to create **barplots** for all the categorical columns in **mtcars**.

Barplot of all categorical variables

```
str(mtcars)
```

```
count <- table(mtcars$cyl)
```

```
barplot(counts ,main ="Bar plot of cyl",xlab="cyl",ylab = "counts",col="red")
```

```
count <- table(mtcars$vs)
```

```
barplot(count ,main ="Bar plot of vs",xlab="vs",ylab = "counts",col="green")
```

```
count <- table(mtcars$am)
```

```
barplot(count ,main ="Bar plot of am",xlab="am",ylab = "counts",col="blue")
```

```
count <- table(mtcars$gear)
```

```
barplot(count ,main ="Bar plot of gear",xlab="gear",ylab = "counts",col="pink")
```

```
count <- table(mtcars$carb)
```

```
barplot(count ,main ="Bar plot of carb",xlab="carb",ylab = "counts",col="red")
```

2. Create a **scatterplot** matrix by gear types in **mtcars** dataset.

```
library(ggplot2)
```

```
library(car)
```

```
scatterplotMatrix(~mpg+disp+drat+hp|gear,data=mtcars,
```

```
main="Scatter plot Matrix for 3 types of Gear Options")
```

3. Write a program to create a **plot density** by class variable.

```
dens_mpg<- density(mtcars$mpg)
```

```
plot(dens_mpg, main="kernel density of mpg")
```

```
polygon(dens_mpg,col="white",border ="red")
```