# ASSIGNMENT 1

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#Downloading a Dataset

https://www.kaggle.com/datasets/adityaab1407/employee-productivity-and-satisfaction-hr-data

#Importing the Dataset into R

```
employee = read.csv("hr_dashboard_data.csv", header = TRUE, sep = ",")
head(employee)
```

```
##               Name Age Gender Projects_Completed Productivity
## 1  Douglas Lindsey  25   Male                 11           57
## 2 Anthony Roberson  59 Female                 19           55
## 3    Thomas Miller  30   Male                  8           87
## 4     Joshua Lewis  26 Female                  1           53
## 5 Stephanie Bailey  43   Male                 14            3
## 6    Jonathan King  24   Male                  5           63
##   Satisfaction_Rate_Per Feedback_Score Department         Position
Joining_Date
## 1                    25            4.7  Marketing          Analyst
Jan-20
## 2                    76            2.8         IT          Manager
Jan-99
## 3                    10            2.4         IT          Analyst
Jan-17
## 4                     4            1.4  Marketing           Intern
Jan-22
## 5                     9            4.5         IT        Team Lead
Jan-05
## 6                    33            4.2      Sales Junior Developer
Jan-21
##          Salary
## 1    63,596.00
## 2  1,12,540.00
## 3    66,292.00
## 4    38,303.00
## 5  1,01,133.00
## 6    48,740.00
```

#Descriptive statistics of Quantitative variable

Mean, Median, Min, Max and Standard deviation of Dataset

```r
summary(employee$Age)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   22.00   26.00   32.00   34.65   41.00   60.00
```

```r
summary(employee$Projects_Completed)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    0.00    6.00   11.00   11.46   17.00   25.00
```

```r
summary(employee$Productivity)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    0.00   23.00   45.00   46.76   70.00   98.00
```

```r
summary(employee$Satisfaction_Rate_Per)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    0.00   25.75   50.50   49.94   75.25  100.00
```

```r
summary(employee$Feedback_Score)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   1.000   1.900   2.800   2.883   3.900   4.900
```

#Descriptive statistics of categorical variable

1.Number of male and female in the Dataset

```r
 table(employee$Gender)
```

```
##
## Female   Male
##    100    100
```

2.Proportion of each department in the Dataset

```r
count=table(employee$Department)
proportion= prop.table(count)
print(proportion)
```

```
##
##   Finance        HR        IT Marketing     Sales
##     0.205     0.160     0.190     0.210     0.235
```

#Transformation of Quantitative Variable

converting the feedback values into percentage

```r
result= (employee$Feedback_Score/5)*100
print(result)
```

```
##   [1] 94 56 48 28 90 84 46 56 46 22 24 50 36 62 36 36 74 78 44 88 40 48 76
24 94
```

```
##  [26] 26 56 78 24 84 98 56 30 26 28 82 54 94 56 26 54 80 86 24 34 60 30 90
94 46
##  [51] 54 64 42 64 36 44 56 68 62 40 38 30 82 28 78 40 42 78 72 80 62 88 30
72 30
##  [76] 78 48 74 76 72 38 86 40 62 74 38 70 42 34 84 64 46 66 22 30 52 98 60
26 82
## [101] 82 82 66 76 38 78 86 80 48 68 70 92 28 86 62 48 56 22 38 72 72 60 96
58 46
## [126] 88 40 68 76 86 82 50 24 24 78 96 48 56 78 72 40 74 44 48 64 78 32 22
70 22
## [151] 24 38 72 26 24 98 54 92 38 54 48 34 46 98 80 50 52 42 62 78 74 58 24
94 52
## [176] 52 20 32 90 62 78 32 46 88 86 40 22 84 34 84 74 34 26 94 68 70 56 32
68 40
```

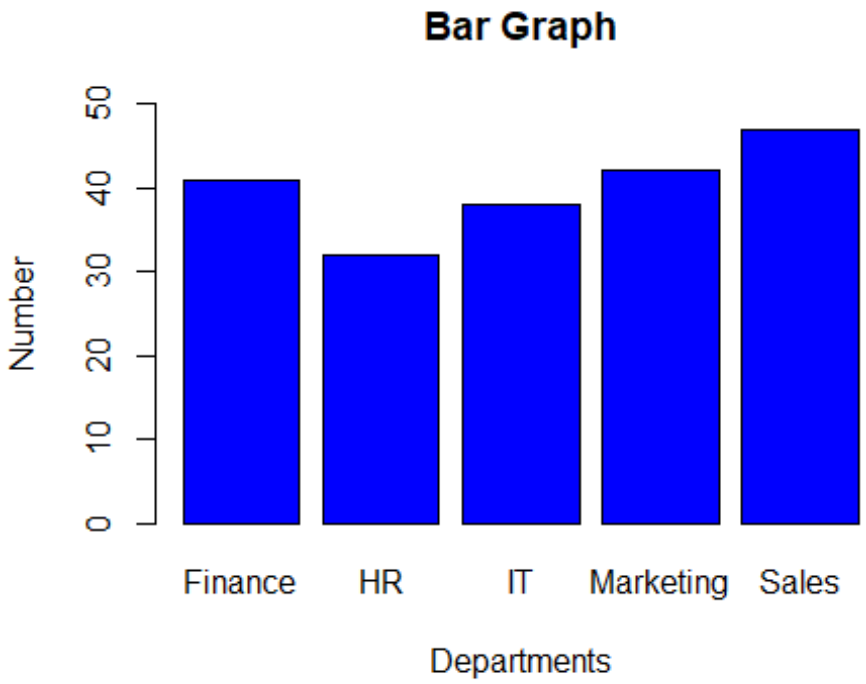
#Plotting the variables

1.Bar plot for number of departments in the Dataset

```
x=table(employee$Department)
print(x)

##
##   Finance        HR        IT Marketing     Sales
##        41        32        38        42        47

barplot.default(x,names.arg = c('Finance','HR','IT', 'Marketing', 'Sales' ),
                xlab= 'Departments', ylab = 'Number', ylim = c(0,50),main =
'Bar Graph',col = 'blue' )
```



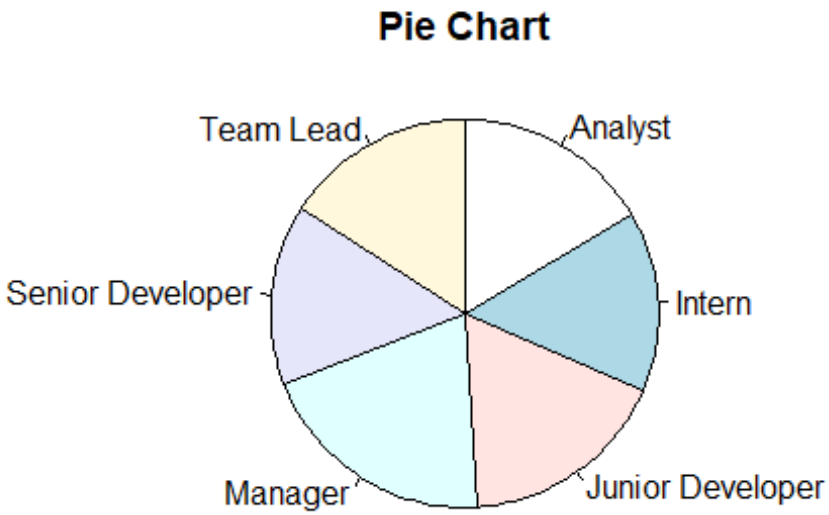

2.Pie Chart for the number of positions in the data set

```
x=table(employee$Position)

 print(x)
```

```
##
##          Analyst           Intern Junior Developer          Manager
##               33               30               35               40
## Senior Developer        Team Lead
##               30               32
```

```
 pie(x, labels= names(x),radius = 1, clockwise = TRUE, main = 'Pie Chart' )
```




#Scatter plot for age and the number of projects completed in the Dataset

```
Age= employee$Age
projects= employee$Projects_Completed
plot(x = Age, y = projects, xlab='Age', ylab= 'No.of projects', xlim =
c(0,100), ylim = c(0,50), main = 'scatterplot')
```


scatterplot
No.of projects
0
10
20
30
40
50
0
20
40
60
80
100
Age