**MODULE 3 ASSIGNMENT**

**INTRODUCTION TO DATA.FRAME**

**This is explanation about conversion of given values of data to data frame and matrix and obtaining mean from them.**

**Name of the candidates outlined in the data frame are Jeb, Donald, Ted, Marco, Carly, Hillary and Berine. Source of the polls here are ABC and CBS.**

**I added the data of the names and political results of both polls to the environment.**

> Name <- c("Jeb", "Donald", "Ted", "Marco", "Carly", "Hillary", "Berine")

> ABC\_political\_poll\_results <- c(4, 62, 51, 21, 2, 14, 15)

> CBS\_political\_poll\_results <- c(12, 75, 43, 19, 1, 21, 19)

**By applying “cbind” to the values, I got data which merged all the three columns of the values into data “poll\_results”.**

> poll\_results<-cbind(Name,ABC\_political\_poll\_results,CBS\_political\_poll\_results)

> poll\_results

Name ABC\_political\_poll\_results CBS\_political\_poll\_results

[1,] "Jeb" "4" "12"

[2,] "Donald" "62" "75"

[3,] "Ted" "51" "43"

[4,] "Marco" "21" "19"

[5,] "Carly" "2" "1"

[6,] "Hillary" "14" "21"

[7,] "Berine" "15" "19"

**Following, I created a dataframe “poll\_results.df” with by using code**

> poll\_results.df<- data.frame(Name,ABC\_political\_poll\_results,CBS\_political\_poll\_results)

> poll\_results.df

Name ABC\_political\_poll\_results CBS\_political\_poll\_results

1 Jeb 4 12

2 Donald 62 75

3 Ted 51 43

4 Marco 21 19

5 Carly 2 1

6 Hillary 14 21

7 Berine 15 19

**With colMeans implementing in both poll results, I got mean for ABC political poll results as 24.14 and CBS political poll results as 27.14.**

> colMeans(poll\_results.df[, 2:3])

ABC\_political\_poll\_results CBS\_political\_poll\_results

24.14286 27.14286

**After this, I implemented the code to convert data frame to matrix.**

> mat<-as.matrix(poll\_results.df)

> mat

**In order to get means of overall poll results from the matrix, new\_mat is created from the matrix “mat”, which contains now only poll results of ABC and CBS.**

> new\_mat=matrix(as.numeric(mat[,2:3]))

> mean(new\_mat)

[1] 25.64286

Mean of the ABC political poll results is **24.14286**.

Mean of the CBS political poll results is **27.14286**.

Overall Mean of the poll results is **25.64286**.

Mean of the CBS political poll results is high compared to ABC political poll results.

**In this way, we can obtain mean from data by using codes for data frames and matrices.**