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REGISTRATION NO OF STUDENT: 20BRS1262

SLOT: L19+ L20

DATE: 12-03-2021

LAB EXPERIMENT 2

PLOTTING OF GRAPHS

AIM:

To perform Graphical representations using R.

	empid	age	sex	status
1	1	30	0	1
2	2	37	1	1
3	3	45	0	2
4	4	32	1	2
5	5	50	1	1
6	6	60	1	1
7	7	35	0	1
8	8	32	0	2
9	9	34	1	2
10	10	43	0	1
11	11	32	0	2
12	12	30	1	1
13	13	43	1	2
14	14	50	0	1
15	15	60	0	2

QUESTION:

Create a data frame with the following descriptions

1. Find the Summary statistics for male and female employee's data
2. Draw a line graph for employer id and age
3. Draw a pie chart for segregating sex in employerid
4. Draw a bar chart for staff and faculty
5. Draw a box plot for staff and faculty

ANSWERS

1]

DATA FRAME:

```
Console  Terminal  Jobs
~/
> empid=c(1,2,3,4,5,6,7,8,9,10,11,12,13,14,15)
> age=c(30,37,45,32,50,60,35,32,34,43,32,30,43,50,60)
> sex=c(0,1,0,1,1,1,0,0,1,0,0,1,1,0,0)
> status=c(1,1,2,2,1,1,1,2,2,1,2,1,2,1,2)
> table=data.frame(empid,age,sex,status)
> table
   empid age sex status
1      1  30   0      1
2      2  37   1      1
3      3  45   0      2
4      4  32   1      2
5      5  50   1      1
6      6  60   1      1
7      7  35   0      1
8      8  32   0      2
9      9  34   1      2
10    10  43   0      1
11    11  32   0      2
12    12  30   1      1
13    13  43   1      2
14    14  50   0      1
15    15  60   0      2
>
```

DATA FRAME AFTER MAKING APPROPRIATE CHANGES:

```
Console  Terminal  Jobs
~/
> table$sex=factor(table$sex,labels=c("male","female"))
> table$status=factor(table$status,labels=c("staff","faculty"))
> table
   empid age    sex  status
1      1  30   male   staff
2      2  37 female   staff
3      3  45   male faculty
4      4  32 female faculty
5      5  50 female   staff
6      6  60 female   staff
7      7  35   male   staff
8      8  32   male faculty
9      9  34 female faculty
10    10  43   male   staff
11    11  32   male faculty
12    12  30 female   staff
13    13  43 female faculty
14    14  50   male   staff
15    15  60   male faculty
>
```

THE SUMMARY:

```
Console  Terminal  Jobs
~/
> summary(table)
     empid           age            sex        status
 Min.   : 1.0   Min.   :30.00   male  :8   staff  :8
 1st Qu.: 4.5   1st Qu.:32.00   female:7   faculty:7
 Median : 8.0   Median :37.00
 Mean   : 8.0   Mean   :40.87
 3rd Qu.:11.5   3rd Qu.:47.50
 Max.   :15.0   Max.   :60.00
>
```

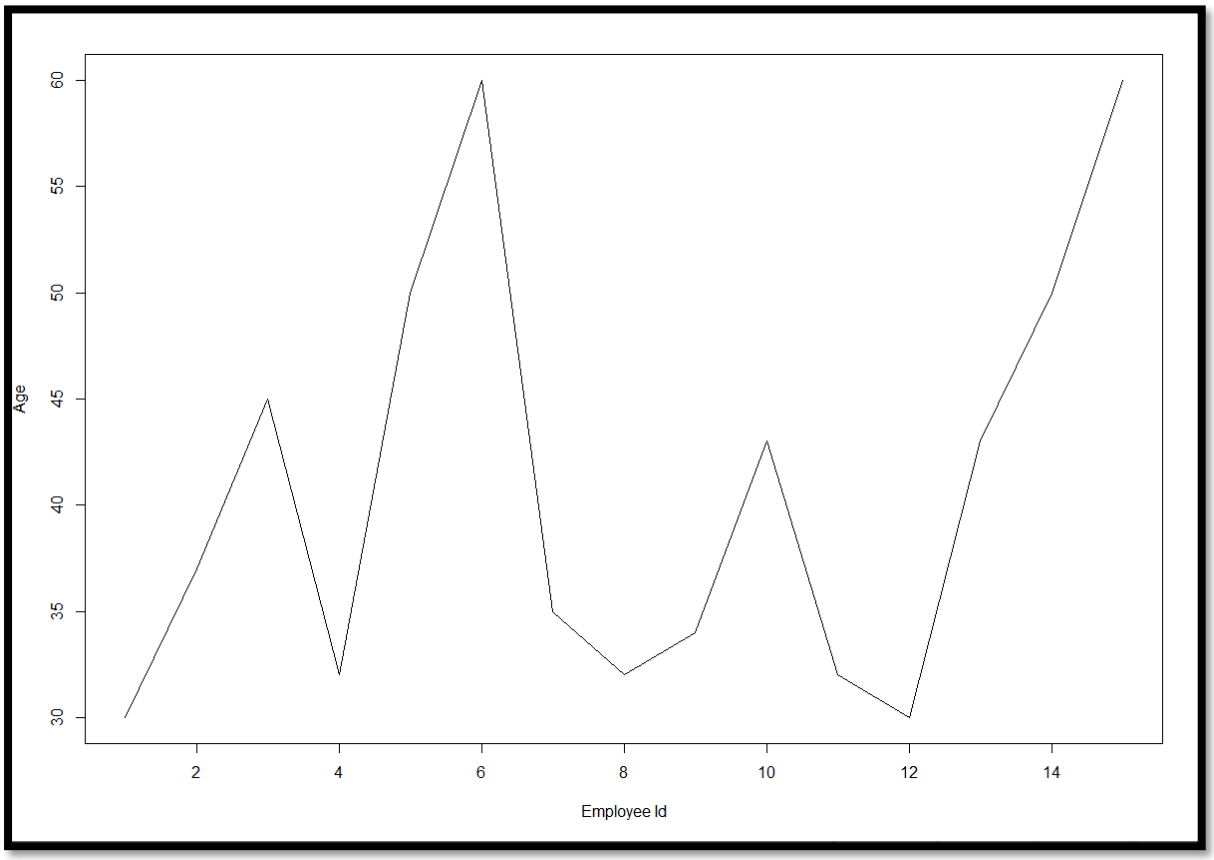
2]

LINE CHART FOR EMPLOYEE ID AND AGE

COMMAND:

plot(table$empid, table$age, type='l',xlab="Employee Id",ylab ="Age")

DIAGRAM:

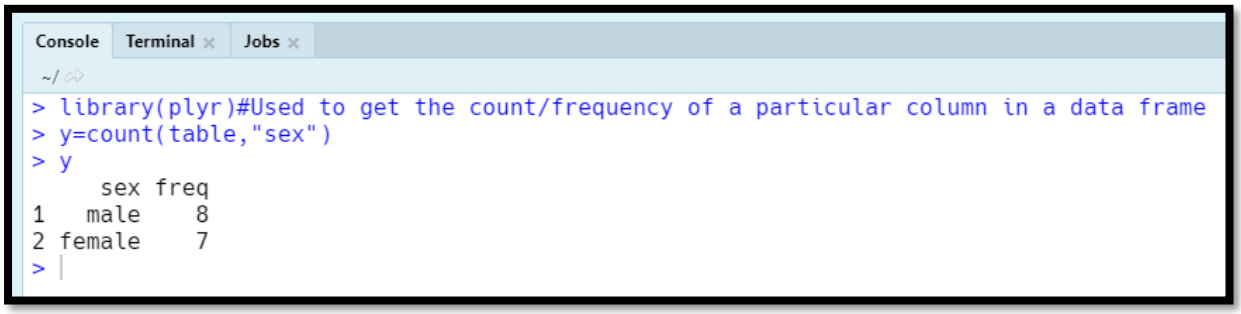


3]

PIE CHART FOR SEX SEGREGATION AMONG THE EMPLOYEES

COMMAND:

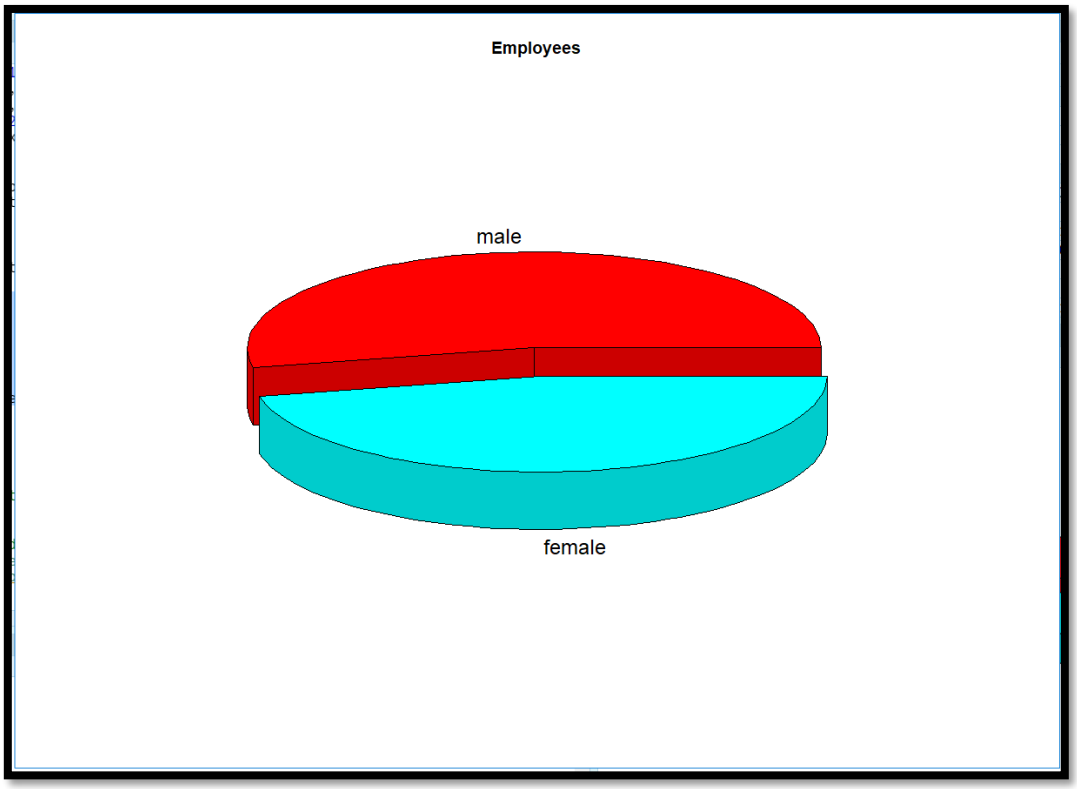
TO COUNT THE FREQUENCY OF MALE AND FEMALE



THE PIE CHART COMMAND

```
Console  Terminal  Jobs
~/
> library(plyr)#Used to get the count/frequency of a particular column in a data frame
> y=count(table,"sex")
> y
     sex freq
1   male    8
2 female    7
> slices<-y$freq
> category<-c("male","female")
> library(plotrix)
> pie3D(slices,explode=0.1,main="Employees")
>
```

DIAGRAM:



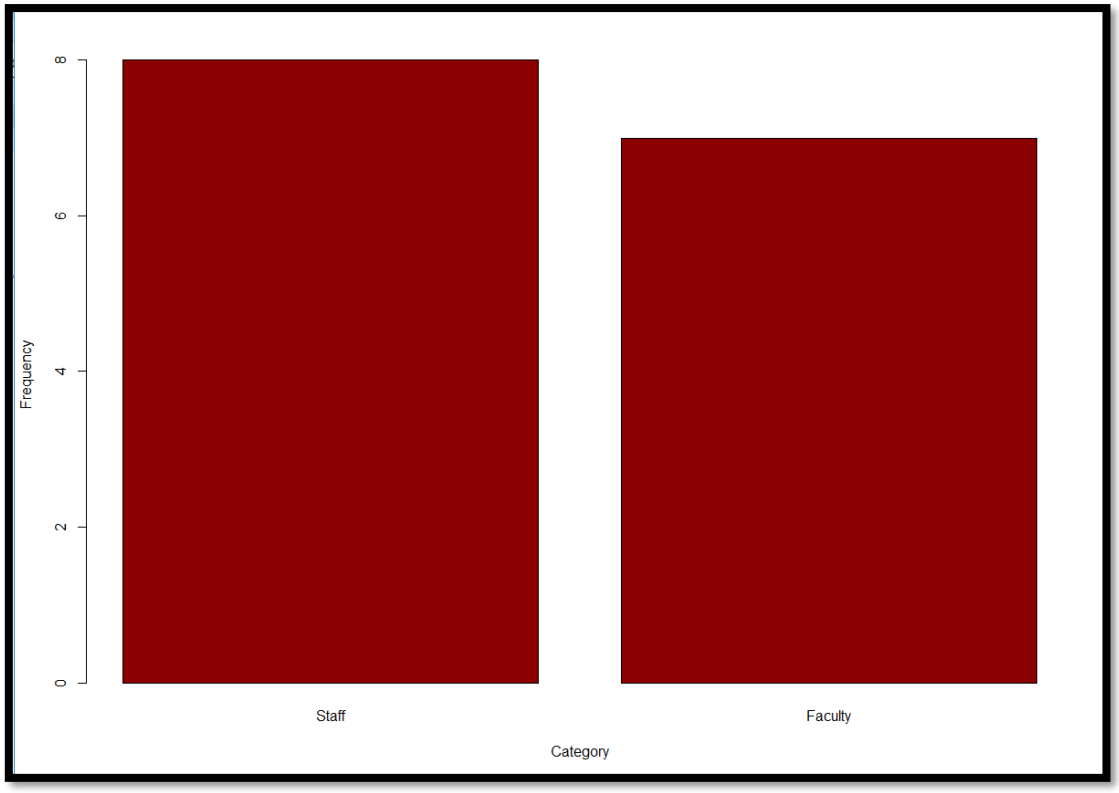
4]

BAR CHART FOR STAFF AND FACULTIES

COMMAND:

```
Console  Terminal  Jobs
~/
> x=count(table,"status")
> x
   status freq
1   staff    8
2 faculty    7
> slice<-x$freq
> tag<-c("Staff","Faculty")
> barplot(slice,names.arg =c("Staff","Faculty"),xlab ="Category",ylab="Frequency",col="darkred")
>
```

DIAGRAM:

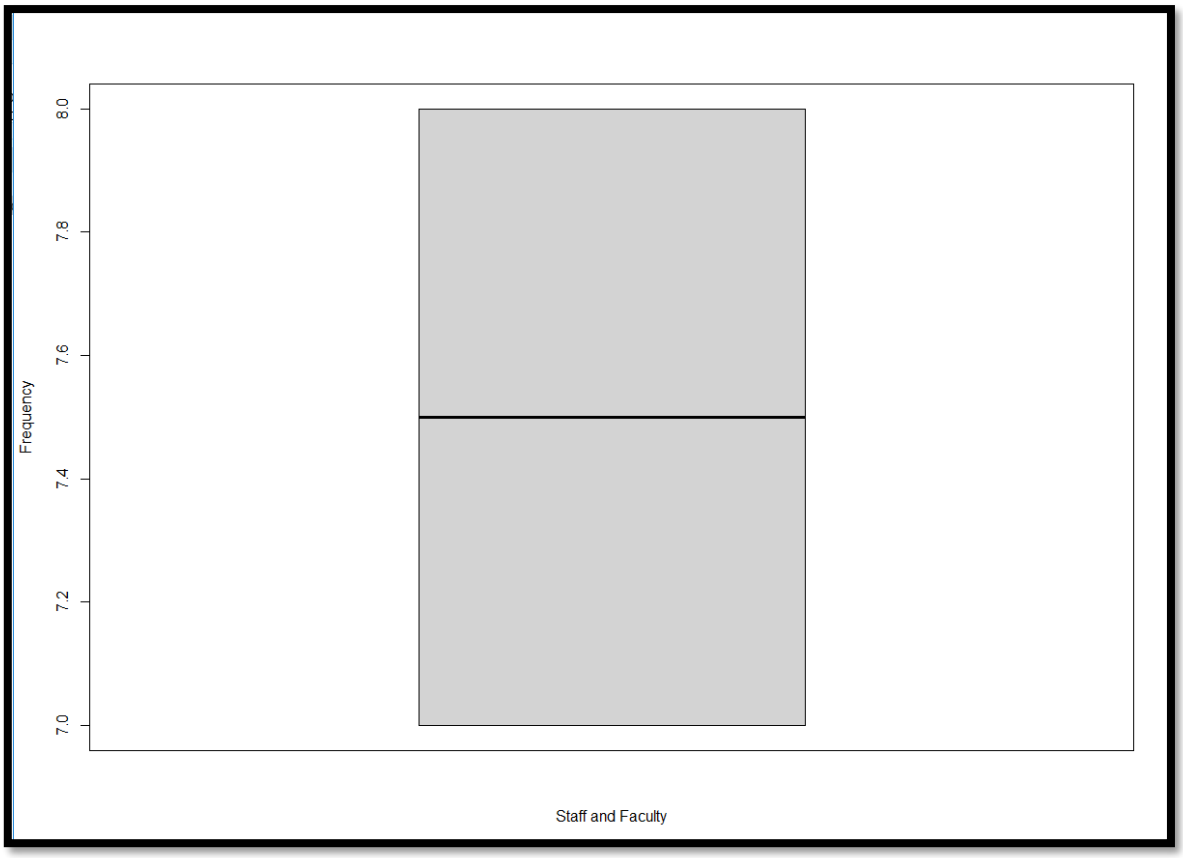


5]

COMMAND:

boxplot(x$freq,xlab="Staff and Faculty",ylab="Frequency")

DIAGRAM:


Frequency
8.0
7.8
7.6
7.4
7.2
7.0
Staff and Faculty