ASSIGNMENT 3.4

Problem Statement

A. Implement user defined functions within apply function using the mtcars data set and produce column wise summary statistics using apply function and mtcars dataset.

B. write a program to extract the names of the list.

Answer:

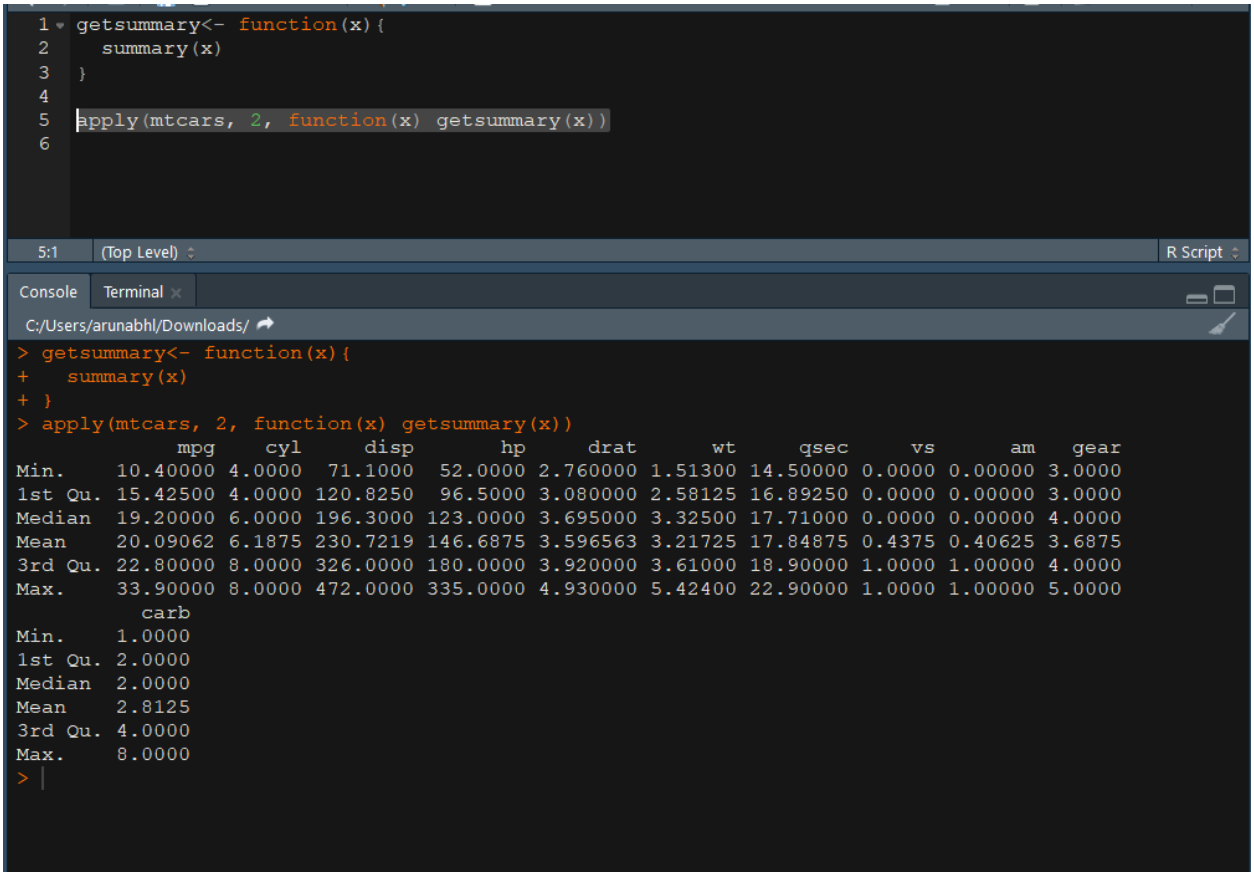
1. Create a user-defined function for summary of the mtcars data.

```
getsummary<- function(x){
        summary(x)
}
```

2. Using apply function to get summary column-wise (2) on mtcars dataset.

```
apply(mtcars, 2, function(x) getsummary(x))
```

OUTPUT: R script is added to the repository.


1 getsummary<- function(x){
2 summary(x)
3 }
4
5 apply(mtcars, 2, function(x) getsummary(x))
6
5:1
(Top Level)
R Script
Console
Terminal
C:/Users/arunabhl/Downloads/
> getsummary<- function(x){
+ summary(x)
+ }
> apply(mtcars, 2, function(x) getsummary(x))
mpg cyl disp hp drat wt qsec vs am gear
Min. 10.40000 4.0000 71.1000 52.0000 2.760000 1.51300 14.50000 0.0000 0.00000 3.0000
1st Qu. 15.42500 4.0000 120.8250 96.5000 3.080000 2.58125 16.89250 0.0000 0.00000 3.0000
Median 19.20000 6.0000 196.3000 123.0000 3.695000 3.32500 17.71000 0.0000 0.00000 4.0000
Mean 20.09062 6.1875 230.7219 146.6875 3.596563 3.21725 17.84875 0.4375 0.40625 3.6875
3rd Qu. 22.80000 8.0000 326.0000 180.0000 3.920000 3.61000 18.90000 1.0000 1.00000 4.0000
Max. 33.90000 8.0000 472.0000 335.0000 4.930000 5.42400 22.90000 1.0000 1.00000 5.0000
carb
Min. 1.0000
1st Qu. 2.0000
Median 2.0000
Mean 2.8125
3rd Qu. 4.0000
Max. 8.0000
>