NAME – ANSH GOEL

REGISTER NO.: 20BCE1798

COURSE NAME: FOUNDATIONS OF DATA ANALYTICS

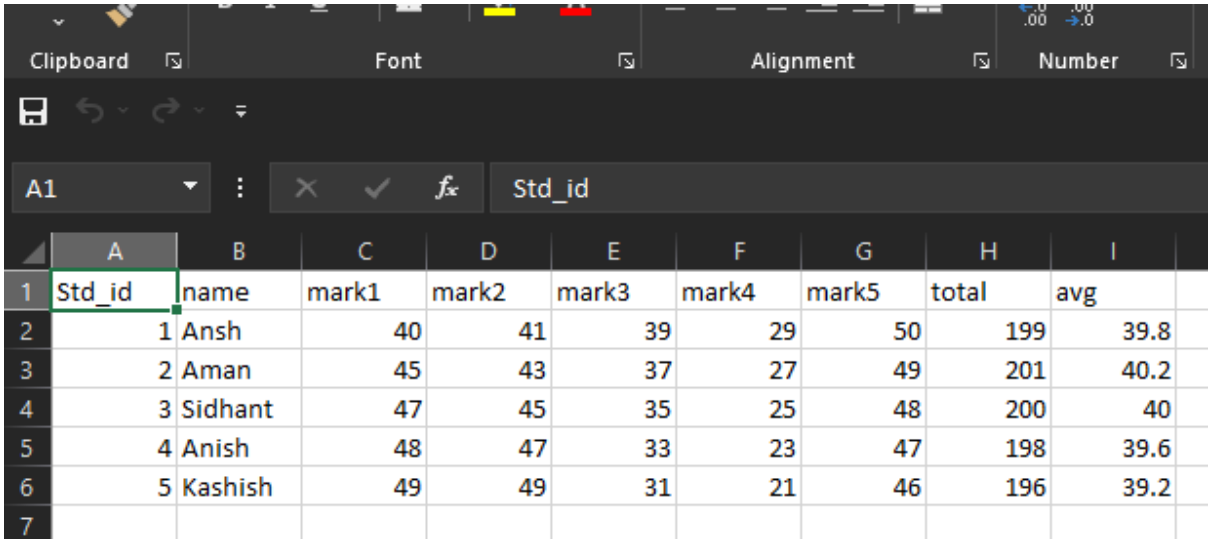
COURSE CODE: CSE3505

DATE: 11TH AUGUST, 2022

LAB-3

```
> df<-data.frame(face=c("ace","two","six"),suit=c("clubs","spade","heart"),value=c(1,2,3))
> df
  face  suit value
1  ace clubs     1
2  two spade     2
3  six heart     3
> typeof(df)
[1] "list"
> class(df)
[1] "data.frame"
> str(df)
'data.frame':        3 obs. of  3 variables:
 $ face : chr  "ace" "two" "six"
 $ suit : chr  "clubs" "spade" "heart"
 $ value: num  1 2 3
> eg1<-
(data.frame(Std_id=1:5,name=c("Ansh","Aman","Sidhant","Anish","Kashish"),mark1=c(40,45,47,48,49),mark2=
c(41,43,45,47,49),mark3=c(39,37,35,33,31),
+                   mark4=c(29,27,25,23,21),mark5=c(50,49,48,47,46)))
> my_eg1<-subset(eg1)
> my_eg1
  Std_id    name mark1 mark2 mark3 mark4 mark5
1      1    Ansh    40    41    39    29    50
2      2    Aman    45    43    37    27    49
3      3 Sidhant    47    45    35    25    48
```

```
4     4   Anish    48    47    33    23    47
5     5 Kashish    49    49    31    21    46
> View(my_eg1)
> my_eg1$total<-rowSums(my_eg1[3:7])
> my_eg1
  Std_id    name mark1 mark2 mark3 mark4 mark5 total
1     1    Ansh    40    41    39    29    50   199
2     2    Aman    45    43    37    27    49   201
3     3 Sidhant    47    45    35    25    48   200
4     4   Anish    48    47    33    23    47   198
5     5 Kashish    49    49    31    21    46   196
> max(my_eg1$total)
[1] 201
> which.max((my_eg1$total))
[1] 2
> my_eg1$avg<-rowMeans(my_eg1[3:7])
> my_eg1
  Std_id    name mark1 mark2 mark3 mark4 mark5 total  avg
1     1    Ansh    40    41    39    29    50   199 39.8
2     2    Aman    45    43    37    27    49   201 40.2
3     3 Sidhant    47    45    35    25    48   200 40.0
4     4   Anish    48    47    33    23    47   198 39.6
5     5 Kashish    49    49    31    21    46   196 39.2
> getwd()
[1] "C:/Users/91981/OneDrive/Documents"
> write.csv(my_eg1,"mark1.csv")
> write.csv(my_eg1,"mark1.csv",row.names = FALSE)
```



	A	B	C	D	E	F	G	H	I
1	Std_id	name	mark1	mark2	mark3	mark4	mark5	total	avg
2	1	Ansh	40	41	39	29	50	199	39.8
3	2	Aman	45	43	37	27	49	201	40.2
4	3	Sidhant	47	45	35	25	48	200	40
5	4	Anish	48	47	33	23	47	198	39.6
6	5	Kashish	49	49	31	21	46	196	39.2
7									

Question 1

Define a table with the same type within a column and different types columns. Use data.frame() function.

> q2<-
data.frame(integers=c(1,2,3,4),characters=c('a','b','c','d'),floats=c(1.0,2.0,3.0,4.0),strings=c("Ansh","Akshit","Ayan","Saksham"))

> q2

integers characters floats strings

1 1 a 1 Ansh

2 2 b 2 Akshit

3 3 c 3 Ayan

4 4 d 4 Saksham

```
> q2
  integers characters floats strings
1        1          a      1    Ansh
2        2          b      2  Akshit
3        3          c      3    Ayan
4        4          d      4 Saksham
```

Question 2

Load mtcars dataset. View the data from mtears. Select mpg, disp and hp. Create a new variable by summing the columns hp and disp. Combine all to create a new table mtcars1. Select rows 4 to 10 to create a new table mtcars2.

Ans.

```
> #Q3)
> data(mtcars)
> cars<-mtcars
> mtcars
                   mpg cyl  disp  hp drat    wt  qsec vs am gear carb
Mazda RX4         21.0   6 160.0 110 3.90 2.620 16.46  0  1    4    4
Mazda RX4 Wag     21.0   6 160.0 110 3.90 2.875 17.02  0  1    4    4
Datsun 710        22.8   4 108.0  93 3.85 2.320 18.61  1  1    4    1
Hornet 4 Drive    21.4   6 258.0 110 3.08 3.215 19.44  1  0    3    1
Hornet Sportabout 18.7   8 360.0 175 3.15 3.440 17.02  0  0    3    2
Valiant           18.1   6 225.0 105 2.76 3.460 20.22  1  0    3    1
Duster 360        14.3   8 360.0 245 3.21 3.570 15.84  0  0    3    4
Merc 240D         24.4   4 146.7  62 3.69 3.190 20.00  1  0    4    2
Merc 230          22.8   4 140.8  95 3.92 3.150 22.90  1  0    4    2
Merc 280          19.2   6 167.6 123 3.92 3.440 18.30  1  0    4    4
Merc 280C         17.8   6 167.6 123 3.92 3.440 18.90  1  0    4    4
Merc 450SE        16.4   8 275.8 180 3.07 4.070 17.40  0  0    3    3
Merc 450SL        17.3   8 275.8 180 3.07 3.730 17.60  0  0    3    3
Merc 450SLC       15.2   8 275.8 180 3.07 3.780 18.00  0  0    3    3
Cadillac Fleetwood  10.4   8 472.0 205 2.93 5.250 17.98  0  0    3    4
Lincoln Continental 10.4   8 460.0 215 3.00 5.424 17.82  0  0    3    4
Chrysler Imperial   14.7   8 440.0 230 3.23 5.345 17.42  0  0    3    4
Fiat 128          32.4   4  78.7  66 4.08 2.200 19.47  1  1    4    1
Honda Civic       30.4   4  75.7  52 4.93 1.615 18.52  1  1    4    2
Toyota Corolla    33.9   4  71.1  65 4.22 1.835 19.90  1  1    4    1
Toyota Corona     21.5   4 120.1  97 3.70 2.465 20.01  1  0    3    1
Dodge Challenger  15.5   8 318.0 150 2.76 3.520 16.87  0  0    3    2
AMC Javelin       15.2   8 304.0 150 3.15 3.435 17.30  0  0    3    2
Camaro Z28        13.3   8 350.0 245 3.73 3.840 15.41  0  0    3    4
Pontiac Firebird  19.2   8 400.0 175 3.08 3.845 17.05  0  0    3    2
Fiat X1-9         27.3   4  79.0  66 4.08 1.935 18.90  1  1    4    1
Porsche 914-2     26.0   4 120.3  91 4.43 2.140 16.70  0  1    5    2
Lotus Europa      30.4   4  95.1 113 3.77 1.513 16.90  1  1    5    2
Ford Pantera L    15.8   8 351.0 264 4.22 3.170 14.50  0  1    5    4
Ferrari Dino      19.7   6 145.0 175 3.62 2.770 15.50  0  1    5    6
Maserati Bora     15.0   8 301.0 335 3.54 3.570 14.60  0  1    5    8
Volvo 142E        21.4   4 121.0 109 4.11 2.780 18.60  1  1    4    2
```

```
> names(mtcars)
 [1] "mpg"  "cyl"  "disp" "hp"   "drat" "wt"   "qsec" "vs"   "am"
[10] "gear" "carb"
```

> View(mtcars)

FDA_LAB3.R* × mtcars ×

Filter

	mpg	cyl	disp	hp	drat	wt	qsec	vs	am	gear	carb
Mazda RX4	21.0	6	160.0	110	3.90	2.620	16.46	0	1	4	4
Mazda RX4 Wag	21.0	6	160.0	110	3.90	2.875	17.02	0	1	4	4
Datsun 710	22.8	4	108.0	93	3.85	2.320	18.61	1	1	4	1
Hornet 4 Drive	21.4	6	258.0	110	3.08	3.215	19.44	1	0	3	1
Hornet Sportabout	18.7	8	360.0	175	3.15	3.440	17.02	0	0	3	2
Valiant	18.1	6	225.0	105	2.76	3.460	20.22	1	0	3	1
Duster 360	14.3	8	360.0	245	3.21	3.570	15.84	0	0	3	4
Merc 240D	24.4	4	146.7	62	3.69	3.190	20.00	1	0	4	2
Merc 230	22.8	4	140.8	95	3.92	3.150	22.90	1	0	4	2
Merc 280	19.2	6	167.6	123	3.92	3.440	18.30	1	0	4	4
Merc 280C	17.8	6	167.6	123	3.92	3.440	18.90	1	0	4	4
Merc 450SE	16.4	8	275.8	180	3.07	4.070	17.40	0	0	3	3
Merc 450SL	17.3	8	275.8	180	3.07	3.730	17.60	0	0	3	3
Merc 450SLC	15.2	8	275.8	180	3.07	3.780	18.00	0	0	3	3
Cadillac Fleetwood	10.4	8	472.0	205	2.93	5.250	17.98	0	0	3	4
Lincoln Continental	10.4	8	460.0	215	3.00	5.424	17.82	0	0	3	4
Chrysler Imperial	14.7	8	440.0	230	3.23	5.345	17.42	0	0	3	4
Fiat 128	32.4	4	78.7	66	4.08	2.200	19.47	1	1	4	1
Honda Civic	30.4	4	75.7	52	4.93	1.615	18.52	1	1	4	2
Toyota Corolla	33.9	4	71.1	65	4.22	1.835	19.90	1	1	4	1
Toyota Corona	21.5	4	120.1	97	3.70	2.465	20.01	1	0	3	1
Dodge Challenger	15.5	8	318.0	150	2.76	3.520	16.87	0	0	3	2
AMC Javelin	15.2	8	304.0	150	3.15	3.435	17.30	0	0	3	2
Camaro Z28	13.3	8	350.0	245	3.73	3.840	15.41	0	0	3	4

```
> cars$mpg
 [1] 21.0 21.0 22.8 21.4 18.7 18.1 14.3 24.4 22.8 19.2 17.8 16.4 17.3
[14] 15.2 10.4 10.4 14.7 32.4 30.4 33.9 21.5 15.5 15.2 13.3 19.2 27.3
[27] 26.0 30.4 15.8 19.7 15.0 21.4
> cars$disp
 [1] 160.0 160.0 108.0 258.0 360.0 225.0 360.0 146.7 140.8 167.6 167.6
[12] 275.8 275.8 275.8 472.0 460.0 440.0  78.7  75.7  71.1 120.1 318.0
[23] 304.0 350.0 400.0  79.0 120.3  95.1 351.0 145.0 301.0 121.0
> cars$hp
 [1] 110 110  93 110 175 105 245  62  95 123 123 180 180 180 205 215 230
[18]  66  52  65  97 150 150 245 175  66  91 113 264 175 335 109
```

```
> cars$sum=cars$hp+cars$disp
> mtcars01<-cars
> mtcars01
                   mpg cyl  disp  hp drat    wt  qsec vs am gear carb
Mazda RX4         21.0   6 160.0 110 3.90 2.620 16.46  0  1    4    4
Mazda RX4 Wag     21.0   6 160.0 110 3.90 2.875 17.02  0  1    4    4
Datsun 710        22.8   4 108.0  93 3.85 2.320 18.61  1  1    4    1
Hornet 4 Drive    21.4   6 258.0 110 3.08 3.215 19.44  1  0    3    1
Hornet Sportabout 18.7   8 360.0 175 3.15 3.440 17.02  0  0    3    2
Valiant           18.1   6 225.0 105 2.76 3.460 20.22  1  0    3    1
Duster 360        14.3   8 360.0 245 3.21 3.570 15.84  0  0    3    4
Merc 240D         24.4   4 146.7  62 3.69 3.190 20.00  1  0    4    2
Merc 230          22.8   4 140.8  95 3.92 3.150 22.90  1  0    4    2
Merc 280          19.2   6 167.6 123 3.92 3.440 18.30  1  0    4    4
Merc 280C         17.8   6 167.6 123 3.92 3.440 18.90  1  0    4    4
Merc 450SE        16.4   8 275.8 180 3.07 4.070 17.40  0  0    3    3
Merc 450SL        17.3   8 275.8 180 3.07 3.730 17.60  0  0    3    3
Merc 450SLC       15.2   8 275.8 180 3.07 3.780 18.00  0  0    3    3
Cadillac Fleetwood  10.4   8 472.0 205 2.93 5.250 17.98  0  0    3    4
Lincoln Continental 10.4   8 460.0 215 3.00 5.424 17.82  0  0    3    4
Chrysler Imperial   14.7   8 440.0 230 3.23 5.345 17.42  0  0    3    4
Fiat 128          32.4   4  78.7  66 4.08 2.200 19.47  1  1    4    1
Honda Civic       30.4   4  75.7  52 4.93 1.615 18.52  1  1    4    2
Toyota Corolla    33.9   4  71.1  65 4.22 1.835 19.90  1  1    4    1
Toyota Corona     21.5   4 120.1  97 3.70 2.465 20.01  1  0    3    1
Dodge Challenger  15.5   8 318.0 150 2.76 3.520 16.87  0  0    3    2
AMC Javelin       15.2   8 304.0 150 3.15 3.435 17.30  0  0    3    2
Camaro Z28        13.3   8 350.0 245 3.73 3.840 15.41  0  0    3    4
Pontiac Firebird  19.2   8 400.0 175 3.08 3.845 17.05  0  0    3    2
Fiat X1-9         27.3   4  79.0  66 4.08 1.935 18.90  1  1    4    1
Porsche 914-2     26.0   4 120.3  91 4.43 2.140 16.70  0  1    5    2
Lotus Europa      30.4   4  95.1 113 3.77 1.513 16.90  1  1    5    2
Ford Pantera L    15.8   8 351.0 264 4.22 3.170 14.50  0  1    5    4
Ferrari Dino      19.7   6 145.0 175 3.62 2.770 15.50  0  1    5    6
Maserati Bora     15.0   8 301.0 335 3.54 3.570 14.60  0  1    5    8
Volvo 142E        21.4   4 121.0 109 4.11 2.780 18.60  1  1    4    2

> mtcars02<-cars[4:10,]
> mtcars02
                  mpg cyl  disp  hp drat    wt  qsec vs am gear carb
Hornet 4 Drive   21.4   6 258.0 110 3.08 3.215 19.44  1  0    3    1
Hornet Sportabout 18.7   8 360.0 175 3.15 3.440 17.02  0  0    3    2
Valiant          18.1   6 225.0 105 2.76 3.460 20.22  1  0    3    1
Duster 360       14.3   8 360.0 245 3.21 3.570 15.84  0  0    3    4
Merc 240D        24.4   4 146.7  62 3.69 3.190 20.00  1  0    4    2
Merc 230         22.8   4 140.8  95 3.92 3.150 22.90  1  0    4    2
Merc 280         19.2   6 167.6 123 3.92 3.440 18.30  1  0    4    4
                   sum
Hornet 4 Drive    368.0
Hornet Sportabout 535.0
Valiant           330.0
Duster 360        605.0
Merc 240D         208.7
Merc 230          235.8
Merc 280          290.6
```

Question 3

Create a new table subset3 which has the mpg and cyl columns and all rows where mpg>18.

```
> subset1<-mtcars[,c(1,2)]
> subset1
                     mpg cyl
Mazda RX4           21.0   6
Mazda RX4 Wag       21.0   6
Datsun 710          22.8   4
Hornet 4 Drive      21.4   6
Hornet Sportabout   18.7   8
Valiant             18.1   6
Duster 360          14.3   8
Merc 240D           24.4   4
Merc 230            22.8   4
Merc 280            19.2   6
Merc 280C           17.8   6
Merc 450SE          16.4   8
Merc 450SL          17.3   8
Merc 450SLC         15.2   8
Cadillac Fleetwood  10.4   8
Lincoln Continental 10.4   8
Chrysler Imperial   14.7   8
Fiat 128            32.4   4
Honda Civic         30.4   4
Toyota Corolla      33.9   4
Toyota Corona       21.5   4
Dodge Challenger    15.5   8
AMC Javelin         15.2   8
Camaro Z28          13.3   8
Pontiac Firebird    19.2   8
Fiat X1-9           27.3   4
Porsche 914-2       26.0   4
Lotus Europa        30.4   4
Ford Pantera L      15.8   8
Ferrari Dino        19.7   6
Maserati Bora       15.0   8
Volvo 142E          21.4   4
```

```
> subset2<-subset(mtcars,select = c())
> subset2
data frame with 0 columns and 32 rows
```

Question 4

Create a dataframe that contains 5 columns- Maths, Physics, Chemistry, Biology and History. There should be a maximum of 20 records of student marks.

```
> #Q5)
> q5<-read.csv("Q5_FDA_LAB3.csv")
> q5
   ï..S.no.      Name Physics Chemistry Biology Maths History
1         1      Ansh      91        89      71    90      91
2         2   Saksham      92        88      72    80      81
3         3     Ayaan      93        87      73    90      71
4         4   Lakshay      94        86      74    80      71
5         5     Anish      95        85      75    90      81
6         6   Kashish      96        84      76    80      91
7         7      Love      97        83      77    90      91
8         8    Akshit      98        82      78    80      81
9         9    Raghav      99        81      79    90      71
10       10     Akash      99        81      79    80      71
11       11      Aman      91        82      78    90      81
12       12     Ritik      92        83      77    80      91
13       13   Rishabh      93        84      76    90      91
14       14     Aarya      94        85      75    80      81
15       15    Harnur      95        86      74    90      71
16       16   Anirudh      96        87      73    80      71
17       17   Pragyna      97        88      72    90      81
18       18    Vigyat      98        89      71    80      91
19       19    Dipesh      98        89      71    90      91
20       20 Himanshu      91        81      79    80      81
> max(q5$Physics)
[1] 99
> max(q5Chemistry)
Error: object 'q5Chemistry' not found
> max(q5$Chemistry)
[1] 89
> max(q5$Biology)
[1] 79
> max(q5$Maths)
[1] 90
> max(q5$History)
[1] 91
```

```
> q5$total<-rowSums(q5[3:7])
> q5
   ï..S.no.      Name Physics Chemistry Biology Maths History total
1         1      Ansh      91         89      71    90      91   432
2         2   Saksham      92         88      72    80      81   413
3         3     Ayaan      93         87      73    90      71   414
4         4   Lakshay      94         86      74    80      71   405
5         5     Anish      95         85      75    90      81   426
6         6   Kashish      96         84      76    80      91   427
7         7      Love      97         83      77    90      91   438
8         8    Akshit      98         82      78    80      81   419
9         9    Raghav      99         81      79    90      71   420
10       10     Akash      99         81      79    80      71   410
11       11      Aman      91         82      78    90      81   422
12       12     Ritik      92         83      77    80      91   423
13       13   Rishabh      93         84      76    90      91   434
14       14     Aarya      94         85      75    80      81   415
15       15    Harnur      95         86      74    90      71   416
16       16   Anirudh      96         87      73    80      71   407
17       17   Pragyna      97         88      72    90      81   428
18       18    Vigyat      98         89      71    80      91   429
19       19    Dipesh      98         89      71    90      91   439
20       20  Himanshu      91         81      79    80      81   412

> q5$avg<-(rowSums(q5[3:7])/5)
> q5
   ï..S.no.      Name Physics Chemistry Biology Maths History total  avg
1         1      Ansh      91         89      71    90      91   432 86.4
2         2   Saksham      92         88      72    80      81   413 82.6
3         3     Ayaan      93         87      73    90      71   414 82.8
4         4   Lakshay      94         86      74    80      71   405 81.0
5         5     Anish      95         85      75    90      81   426 85.2
6         6   Kashish      96         84      76    80      91   427 85.4
7         7      Love      97         83      77    90      91   438 87.6
8         8    Akshit      98         82      78    80      81   419 83.8
9         9    Raghav      99         81      79    90      71   420 84.0
10       10     Akash      99         81      79    80      71   410 82.0
11       11      Aman      91         82      78    90      81   422 84.4
12       12     Ritik      92         83      77    80      91   423 84.6
13       13   Rishabh      93         84      76    90      91   434 86.8
14       14     Aarya      94         85      75    80      81   415 83.0
15       15    Harnur      95         86      74    90      71   416 83.2
16       16   Anirudh      96         87      73    80      71   407 81.4
17       17   Pragyna      97         88      72    90      81   428 85.6
18       18    Vigyat      98         89      71    80      91   429 85.8
19       19    Dipesh      98         89      71    90      91   439 87.8
20       20  Himanshu      91         81      79    80      81   412 82.4
```

```
> q5$rank<-rank(q5$avg)
> q5
   ï..S.no.      Name Physics Chemistry Biology Maths History total  avg
1         1      Ansh      91        89      71    90      91   432 86.4
2         2   Saksham      92        88      72    80      81   413 82.6
3         3     Ayaan      93        87      73    90      71   414 82.8
4         4   Lakshay      94        86      74    80      71   405 81.0
5         5     Anish      95        85      75    90      81   426 85.2
6         6   Kashish      96        84      76    80      91   427 85.4
7         7      Love      97        83      77    90      91   438 87.6
8         8    Akshit      98        82      78    80      81   419 83.8
9         9    Raghav      99        81      79    90      71   420 84.0
10       10     Akash      99        81      79    80      71   410 82.0
11       11      Aman      91        82      78    90      81   422 84.4
12       12     Ritik      92        83      77    80      91   423 84.6
13       13   Rishabh      93        84      76    90      91   434 86.8
14       14     Aarya      94        85      75    80      81   415 83.0
15       15    Harnur      95        86      74    90      71   416 83.2
16       16   Anirudh      96        87      73    80      71   407 81.4
17       17   Pragyna      97        88      72    90      81   428 85.6
18       18    Vigyat      98        89      71    80      91   429 85.8
19       19    Dipesh      98        89      71    90      91   439 87.8
20       20  Himanshu      91        81      79    80      81   412 82.4
   rank
1    17
2     5
3     6
4     1
5    13
6    14
7    19
8     9
9    10
10    3
11   11
12   12
13   18
14    7
15    8
```

```
> q5<-q5[order(q5$rank),]
> q5
   ï..S.no.      Name Physics Chemistry Biology Maths History total  avg
4          4  Lakshay      94         86      74    80      71   405 81.0
16        16  Anirudh      96         87      73    80      71   407 81.4
10        10    Akash      99         81      79    80      71   410 82.0
20        20 Himanshu      91         81      79    80      81   412 82.4
2          2  Saksham      92         88      72    80      81   413 82.6
3          3    Ayaan      93         87      73    90      71   414 82.8
14        14    Aarya      94         85      75    80      81   415 83.0
15        15   Harnur      95         86      74    90      71   416 83.2
8          8   Akshit      98         82      78    80      81   419 83.8
9          9   Raghav      99         81      79    90      71   420 84.0
11        11     Aman      91         82      78    90      81   422 84.4
12        12    Ritik      92         83      77    80      91   423 84.6
5          5    Anish      95         85      75    90      81   426 85.2
6          6  Kashish      96         84      76    80      91   427 85.4
17        17  Pragyna      97         88      72    90      81   428 85.6
18        18   Vigyat      98         89      71    80      91   429 85.8
1          1     Ansh      91         89      71    90      91   432 86.4
13        13  Rishabh      93         84      76    90      91   434 86.8
7          7     Love      97         83      77    90      91   438 87.6
19        19   Dipesh      98         89      71    90      91   439 87.8
   rank
4     1
16    2
10    3
20    4
2     5
3     6
14    7
15    8
8     9
9    10
11   11
12   12
5    13
6    14
17   15


> write.csv(q5,"final_q5.csv")
> 
```

	A	B	C	D	E	F	G	H	I	J	K
1		ï..S.no.	Name	Physics	Chemistry	Biology	Maths	History	total	avg	rank
2	4	4	Lakshay	94	86	74	80	71	405	81	1
3	16	16	Anirudh	96	87	73	80	71	407	81.4	2
4	10	10	Akash	99	81	79	80	71	410	82	3
5	20	20	Himanshu	91	81	79	80	81	412	82.4	4
6	2	2	Saksham	92	88	72	80	81	413	82.6	5
7	3	3	Ayaan	93	87	73	90	71	414	82.8	6
8	14	14	Aarya	94	85	75	80	81	415	83	7
9	15	15	Harnur	95	86	74	90	71	416	83.2	8
10	8	8	Akshit	98	82	78	80	81	419	83.8	9
11	9	9	Raghav	99	81	79	90	71	420	84	10
12	11	11	Aman	91	82	78	90	81	422	84.4	11
13	12	12	Ritik	92	83	77	80	91	423	84.6	12
14	5	5	Anish	95	85	75	90	81	426	85.2	13
15	6	6	Kashish	96	84	76	80	91	427	85.4	14
16	17	17	Pragyna	97	88	72	90	81	428	85.6	15
17	18	18	Vigyat	98	89	71	80	91	429	85.8	16
18	1	1	Ansh	91	89	71	90	91	432	86.4	17
19	13	13	Rishabh	93	84	76	90	91	434	86.8	18
20	7	7	Love	97	83	77	90	91	438	87.6	19
21	19	19	Dipesh	98	89	71	90	91	439	87.8	20