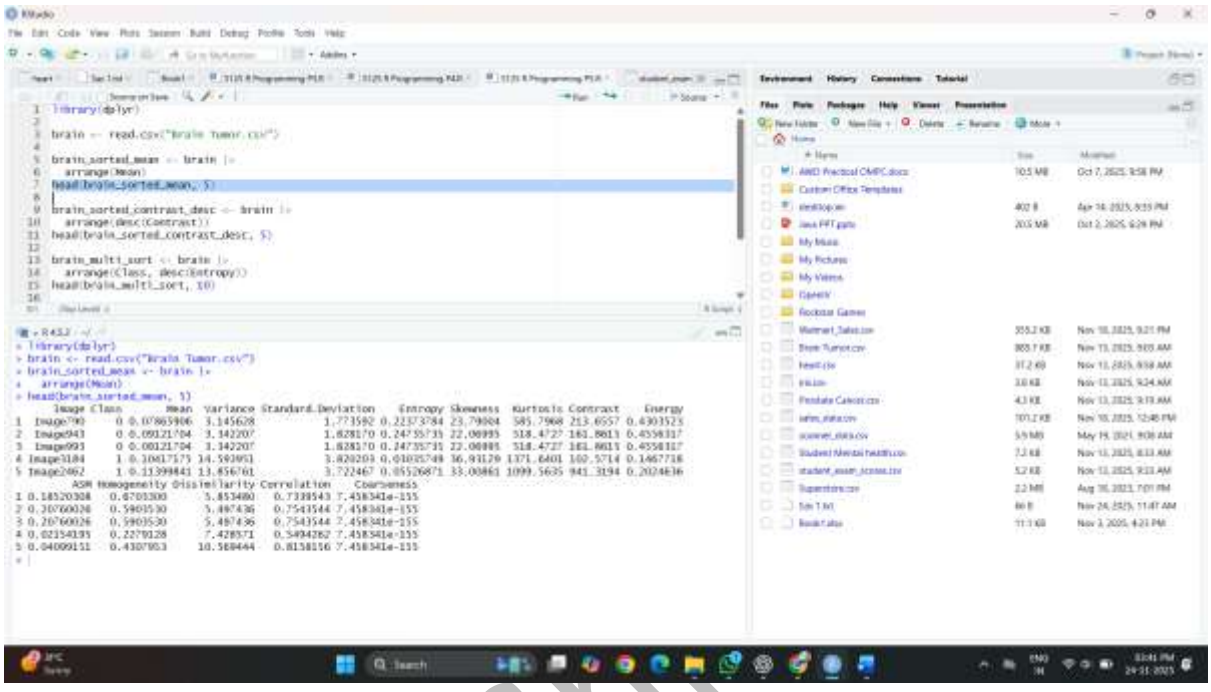
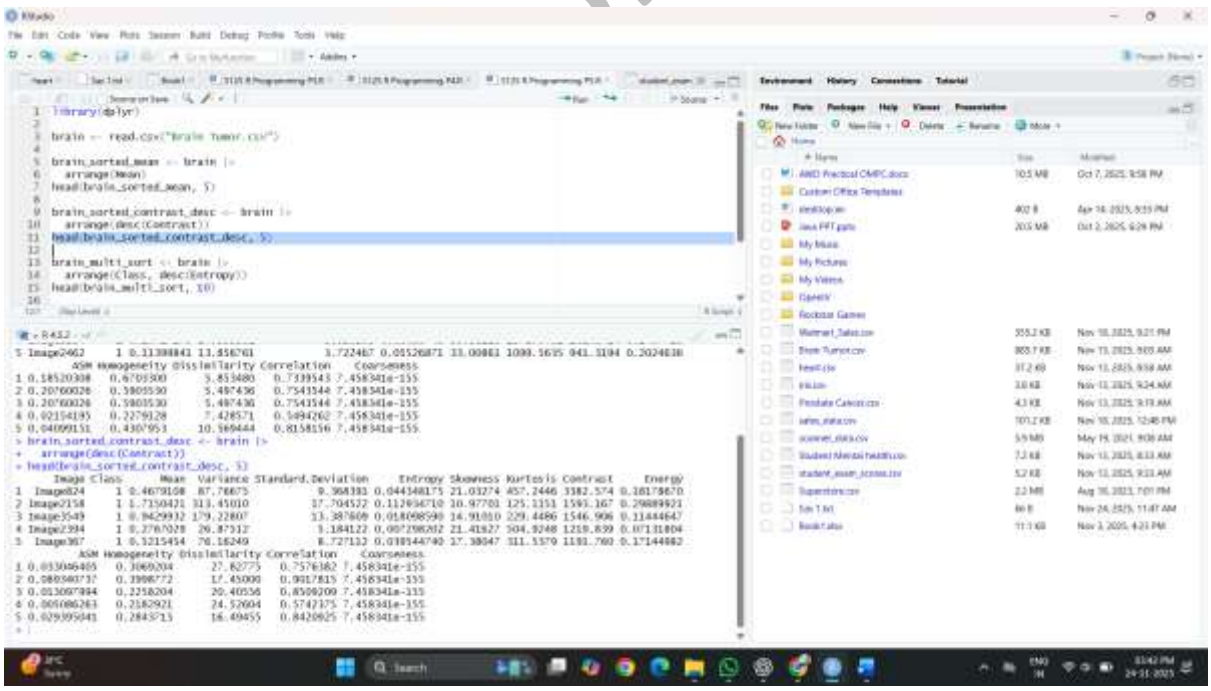
Sheth L.U.J & Sir M.V College
SAS/SSPS/R
Practical No.5

Aim: Sorting data using arrange() in R.

Output:





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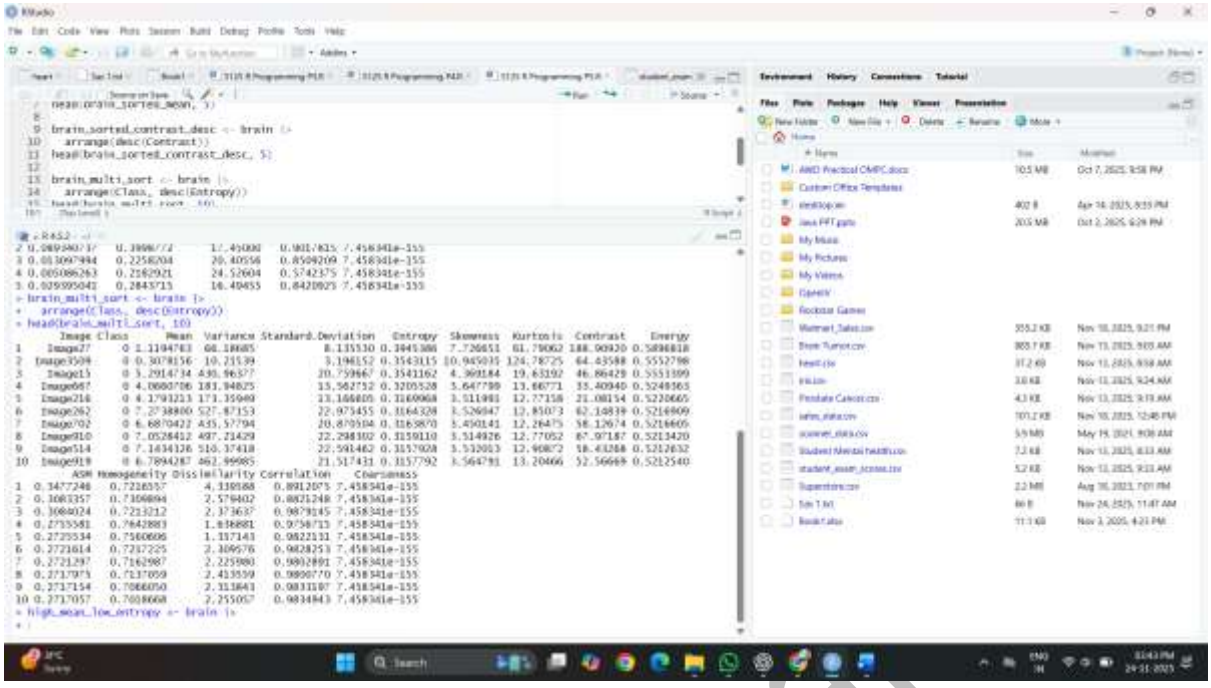
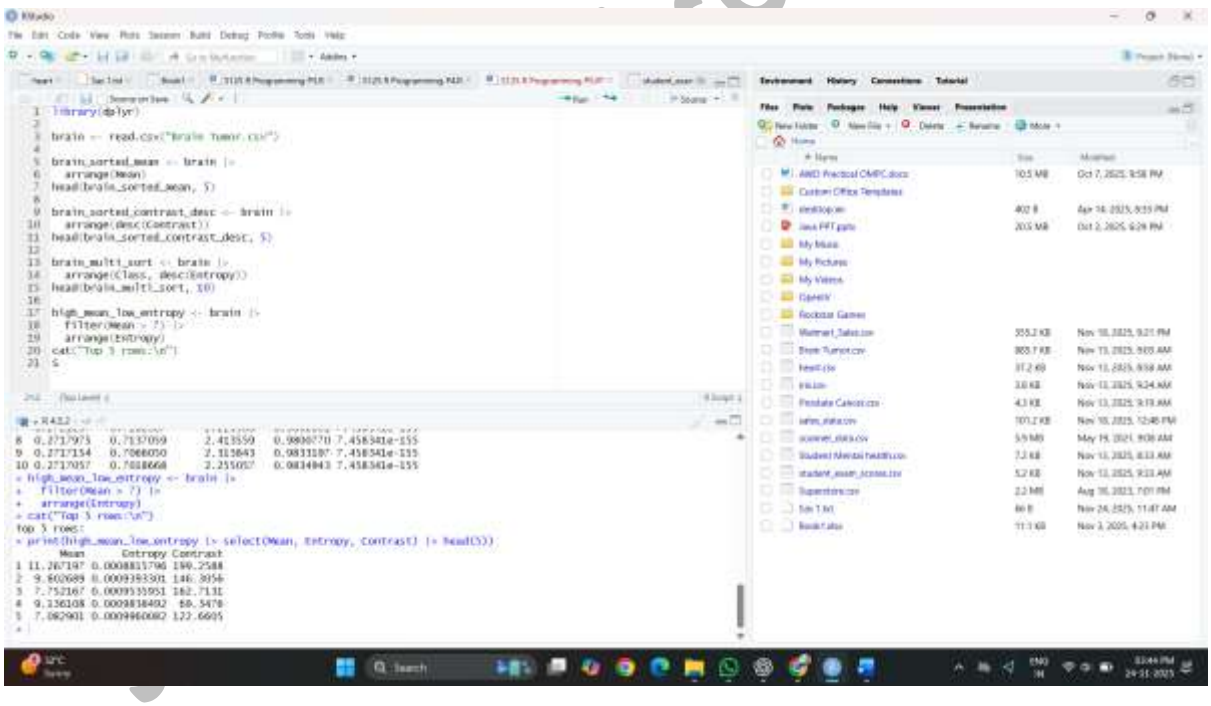


```
head(brain_sorted_mean, 5)

brain_sorted_contrast_desc <- brain |>
  arrange(desc(Contrast))
head(brain_sorted_contrast_desc, 5)

brain_multi_sort <- brain |>
  arrange(Class, desc(Entropy))
```

```
2 0.0893803737   0.3886772      12.45000   0.9017815 7.458341e-155
3 0.0130979494   0.2258204      20.40556   0.8504209 7.458341e-155
4 0.0050886263   0.2162921      24.52604   0.5742375 7.458341e-155
5 0.0295955041   0.2843715      16.49455   0.8420825 7.458341e-155
> brain_multi_sort <- brain |>
+   arrange(Class, desc(Entropy))
> head(brain_multi_sort, 10)
      Image Class       Mean  Variance Standard.Deviation   Entropy  Skewness  Kurtosis  Contrast    Energy
1    Image27     0 1.1194783 68.18685          8.135530 0.3045386 7.726651 61.79062 188.90920 0.5898818
2  Image3509     0 0.3078156 10.21539          3.196152 0.3543115 10.945035 124.78725 64.43588 0.5552798
3    Image15     0 5.2914734 430.96377         20.759667 0.3541162 4.369184 19.63192 46.86428 0.5551399
4   Image667     0 4.0860706 183.94825         13.562752 0.3205528 5.647799 33.86771 35.40940 0.5248365
5   Image216     0 4.1791213 173.35940         13.166805 0.3160068 5.511981 32.77158 31.08154 0.5220665
6   Image262     0 7.2738800 527.87153         22.975455 0.3164328 3.526947 12.85073 62.16839 0.5216809
7   Image702     0 6.6870422 435.57794         20.870504 0.3165870 3.450141 12.26475 58.12674 0.5216605
8   Image810     0 7.0528412 497.21429         22.298302 0.3159110 3.514826 12.77052 67.97187 0.5213420
9   Image514     0 7.1434126 510.37418         22.591462 0.3157028 3.532003 12.90872 58.43084 0.5212632
10  Image919     0 6.7894287 462.99985         21.517431 0.3157792 3.564781 13.20466 52.56669 0.5212540
       ASM Homogeneity Dissimilarity Correlation    Coarseness
1  0.1477248   0.7218557      4.330188   0.8912075 7.458341e-155
2  0.1083357   0.7306894      2.576402   0.8821248 7.458341e-155
3  0.1084024   0.7213212      2.373637   0.9079145 7.458341e-155
4  0.2755581   0.7642883      1.836881   0.9756715 7.458341e-155
5  0.2725534   0.7560606      1.117143   0.9822131 7.458341e-155
6  0.2721614   0.7217225      2.309576   0.9828253 7.458341e-155
7  0.2721297   0.7162987      2.225980   0.9803801 7.458341e-155
8  0.2717975   0.7137059      2.413559   0.9806770 7.458341e-155
9  0.2717154   0.7068050      2.113843   0.9831187 7.458341e-155
10 0.2717057   0.7018668      2.255057   0.9834843 7.458341e-155
> high_mean_low_entropy <- brain |>
+
```



```
library(dplyr)

brain <- read.csv("Brain Tumor.csv")

brain_sorted_mean <- brain |>
  arrange(Mean)
head(brain_sorted_mean, 5)

brain_sorted_contrast_desc <- brain |>
  arrange(desc(Contrast))
head(brain_sorted_contrast_desc, 5)

brain_multi_sort <- brain |>
  arrange(Class, desc(Entropy))
head(brain_multi_sort, 10)

high_mean_low_entropy <- brain |>
  filter(Mean > 7) |>
  arrange(Entropy)
cat("Top 5 rows:\n")
5
```

```
8  0.2717975   0.7137059      2.413559   0.9806770 7.458341e-155
9  0.2717154   0.7068050      2.113843   0.9831187 7.458341e-155
10 0.2717057   0.7018668      2.255057   0.9834843 7.458341e-155
> high_mean_low_entropy <- brain |>
+   filter(Mean > 7) |>
+   arrange(Entropy)
> cat("Top 5 rows:\n")
Top 5 rows:
> print(high_mean_low_entropy |> select(Mean, Entropy, Contrast) |> head(5))
      Mean     Entropy Contrast
1 11.267147 0.000881570 190.2588
2  9.860689 0.000939591 146.3056
3  7.752167 0.000955551 162.7131
4  9.136108 0.000981840  88.5478
5  7.082901 0.000996008 122.6605
>
```

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