

# SHETH L.U.J & SIR M.V COLLEGE OF SCIENCE

## SUBJECT : Data Analysis with SAS / SPSS / R

**AIM :** Sorting data using PROC SORT in SAS, Sort Cases in SPSS, and arrange() in R.

### OUTPUT

```

RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Source Terminal Background Jobs
> library(dplyr)
> sleep <- read.csv("Sleep_health.csv")
> sleep_sorted_duration <- sleep %
+   arrange(Sleep.Duration)
> head(sleep_sorted_duration, 5)
#> #> #> #> #>
Person.ID Gender Age Occupation Sleep.Duration quality.of.Sleep
1 81 Female 34 Scientist 5.8 4
2 82 Female 34 Scientist 5.8 4
3 4 Male 28 Sales Representative 5.9 4
4 5 Male 28 Sales Representative 5.9 4
5 6 Male 28 Software Engineer 5.9 4
Physical.Activity.Level Stress.Level BMI.Category Blood.Pressure Heart.Rate Daily.Steps
1 32 8 Overweight 131/86 81 5200
2 32 8 Overweight 131/86 81 5200
3 30 8 Obese 140/90 85 3000
4 30 8 Obese 140/90 85 3000
5 30 8 Obese 140/90 85 3000
Sleep_Disorder
1 Sleep_Apnea
2 Sleep_Apnea
3 Sleep_Apnea
4 Sleep_Apnea
5 Insomnia
> sleep_sorted_stress_desc <- sleep %
+   arrange(desc(Stress.Level))
> head(sleep_sorted_stress_desc, 5)
#> #> #> #> #>
Person.ID Gender Age Occupation Sleep.Duration Quality.of.Sleep
1 2 Male 28 Doctor 6.2 6
2 3 Male 28 Doctor 6.2 6
3 4 Male 28 Sales Representative 5.9 4
4 5 Male 28 Sales Representative 5.9 4
5 6 Male 28 Software Engineer 5.9 4
Physical.Activity.Level Stress.Level BMI.Category Blood.Pressure Heart.Rate Daily.Steps
1 60 8 Normal 125/80 75 10000
2 60 8 Normal 125/80 75 10000
3 30 8 Obese 140/90 85 3000
4 30 8 Obese 140/90 85 3000
5 30 8 Obese 140/90 85 3000
Sleep_Disorder
1 None

```

  

```

RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Source Terminal Background Jobs
> Sleep_Disorder
1 None
2 None
3 Sleep_Apnea
4 Sleep_Apnea
5 Insomnia
> sleep_multi_sort <- sleep %
+   arrange(Gender, desc(Sleep.Duration))
> head(sleep_multi_sort, 10)
#> #> #> #> #> #> #> #> #> #>
Person.ID Gender Age Occupation Sleep.Duration Quality.of.Sleep Physical.Activity.Level
1 299 Female 51 Engineer 8.5 9 30
2 300 Female 51 Engineer 8.5 9 30
3 301 Female 51 Engineer 8.5 9 30
4 302 Female 51 Engineer 8.5 9 30
5 317 Female 53 Engineer 8.5 9 30
6 318 Female 53 Engineer 8.5 9 30
7 321 Female 53 Engineer 8.5 9 30
8 324 Female 53 Engineer 8.5 9 30
9 326 Female 53 Engineer 8.5 9 30
10 328 Female 53 Engineer 8.5 9 30
Stress.Level BMI.Category Blood.Pressure Heart.Rate Daily.Steps Sleep_Disorder
1 3 Normal 125/80 65 5000 None
2 3 Normal 125/80 65 5000 None
3 3 Normal 125/80 65 5000 None
4 3 Normal 125/80 65 5000 None
5 3 Normal 125/80 65 5000 None
6 3 Normal 125/80 65 5000 None
7 3 Normal 125/80 65 5000 None
8 3 Normal 125/80 65 5000 None
9 3 Normal 125/80 65 5000 None
10 3 Normal 125/80 65 5000 None
> long_sleep_by_quality <- sleep %
+   filter(Sleep.Duration > 8) %
+   arrange(Quality.of.Sleep)
> cat("Top 5 longest sleepers with lowest sleep quality:\n")
Top 5 longest sleepers with lowest sleep quality:
> print(long_sleep_by_quality %>% select(Sleep.Duration, Quality.of.Sleep, Age) %>% head(5))

```

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The screenshot shows the RStudio interface with the following details:

- Console:** Displays R code and its output. The code involves reading a CSV file named "sleep\_health.csv", filtering it to remove rows where Sleep.Duration is less than 8 hours, and then selecting columns for Sleep.Duration, Quality.of.Sleep, and Age. It also prints the top 5 rows of the filtered data.
- Data View:** Shows a preview of the "sleep" dataset, which contains 374 observations and 13 variables. The variables include Person.ID, Gender, Age, Occupation, Sleep.Duration, Quality.of.Sleep, Physical.Activity.Level, Stress.Level, BMI, Category, Blood.Pressure, Heart.Rate, Daily.Steps, and Sleep.disorder.
- File Explorer:** Shows the local directory structure, including folders like JData, .History, Custom Office Templates, Dell, desktop.ini, My Music, My Videos, NetBeansProjects, and a shortcut to Documents (OneDrive - Personal).lnk.
- Snipping Tool:** A floating window indicates that a screenshot has been copied to the clipboard and saved to the screenshots folder.
- System Tray:** Shows icons for battery level (31°C), network, volume, and date/time (24-11-2025, 16:49).

