

PRACTICAL NO :5

AIM: Sorting data using arrange() in R.

OUTPUT:

The image shows two side-by-side RStudio sessions. Both sessions have the following header:

```
R > 4.5.2 - ~/
```

Session 1 (Left):

```
> # Load library
> library(dplyr)
>
> # Load your Heart dataset
> heart <- read.csv("heart.csv") # Make sure the filename is correct
>
> # Sort by a single variable (Ascending)
> # Example: Sort by Age from lowest to highest
> heart_sorted_age <- heart |>
+   arrange(Age)
>
> head(heart_sorted_age, 5)
#> #> #> #>
```

Age	Sex	ChestPainType	RestingBP	Cholesterol	FastingBS	RestingECG	MaxHR	ExerciseAngina	Oldpeak	ST_Slope	HeartDisease	
1	28	M	ATA	130	132	0	LVH	185	N	0	Up	0
2	29	M	ATA	120	243	0	Normal	160	N	0	Up	0
3	29	M	ATA	140	263	0	Normal	170	N	0	Up	0
4	29	M	ATA	130	204	0	LVH	202	N	0	Up	0
5	30	F	TA	170	237	0	ST	170	N	0	Up	0

```
> # 2 Sorting by a single variable (Descending)
> # Example: Sort by cholesterol highest first
> heart_sorted_chol_desc <- heart |>
+   arrange(desc(Cholesterol))
>
> head(heart_sorted_chol_desc, 5)
#> #> #> #>
```

Age	Sex	ChestPainType	RestingBP	Cholesterol	FastingBS	RestingECG	MaxHR	ExerciseAngina	Oldpeak	ST_Slope	HeartDisease	
1	54	M	ASY	130	603	1	Normal	125	Y	1.0	Flat	1
2	67	F	NAP	115	564	0	LVH	160	N	1.6	Flat	0
3	32	M	ASY	118	529	0	Normal	130	N	0.0	Flat	1
4	53	M	NAP	145	518	0	Normal	130	N	0.0	Flat	1
5	44	M	ASY	135	491	0	Normal	135	N	0.0	Flat	1

```
> # 3 Sorting by multiple variables
#> #> #> #>
```

Session 2 (Right):

```
> # 4 Filter + Sort together
> # Example: People with high Heart Rate (MaxHR > 160), sort by Age
> high_hr_sorted <- heart |>
+   filter(MaxHR > 160) |>
+   arrange(Age)
>
> cat("People with high MaxHR:\n")
People with high MaxHR:
> print(high_hr_sorted |> select(Age, Sex, MaxHR, HeartDisease) |> head(5))
#> #> #> #>
```

Age	Sex	MaxHR	HeartDisease
1	28	185	0
2	29	170	0
3	29	202	0
4	30	170	0
5	32	184	0