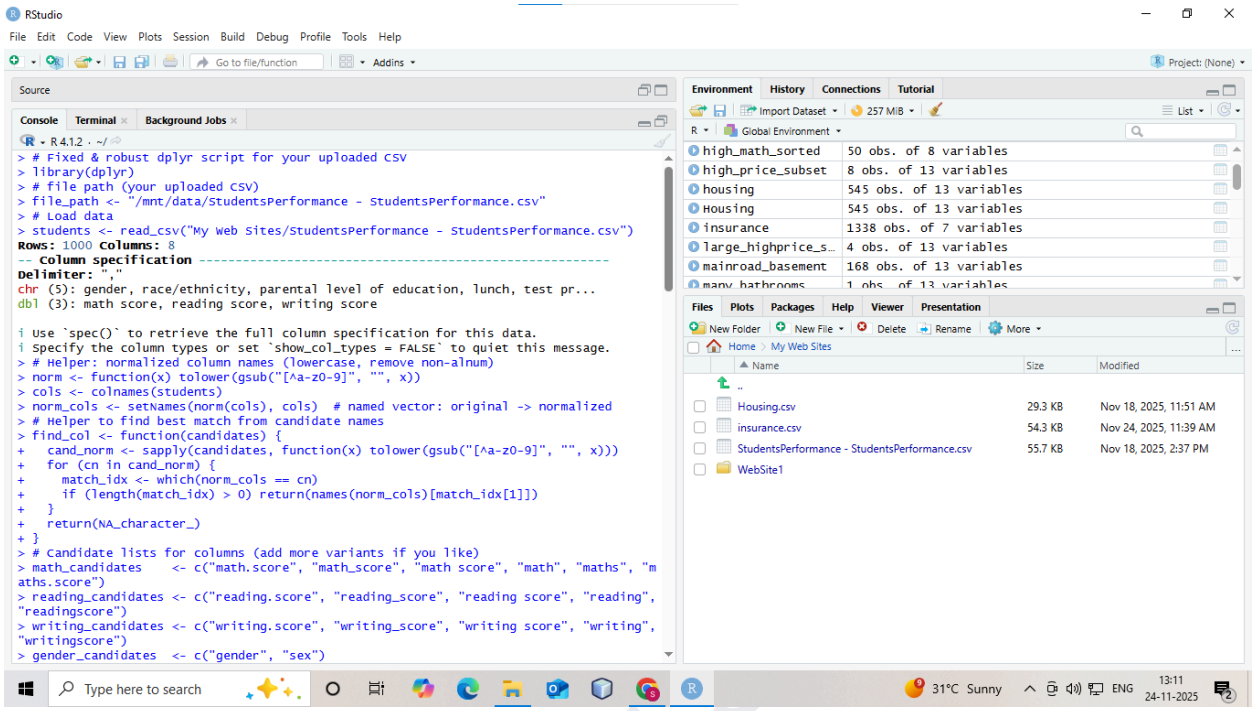
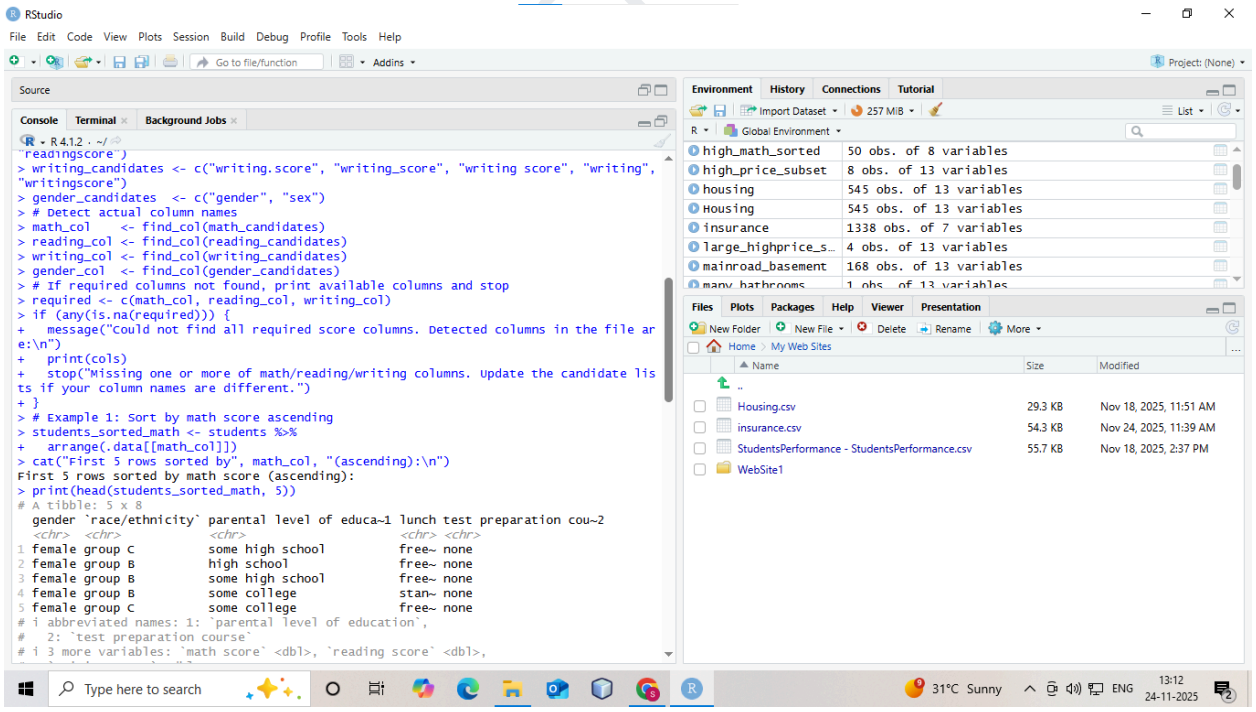
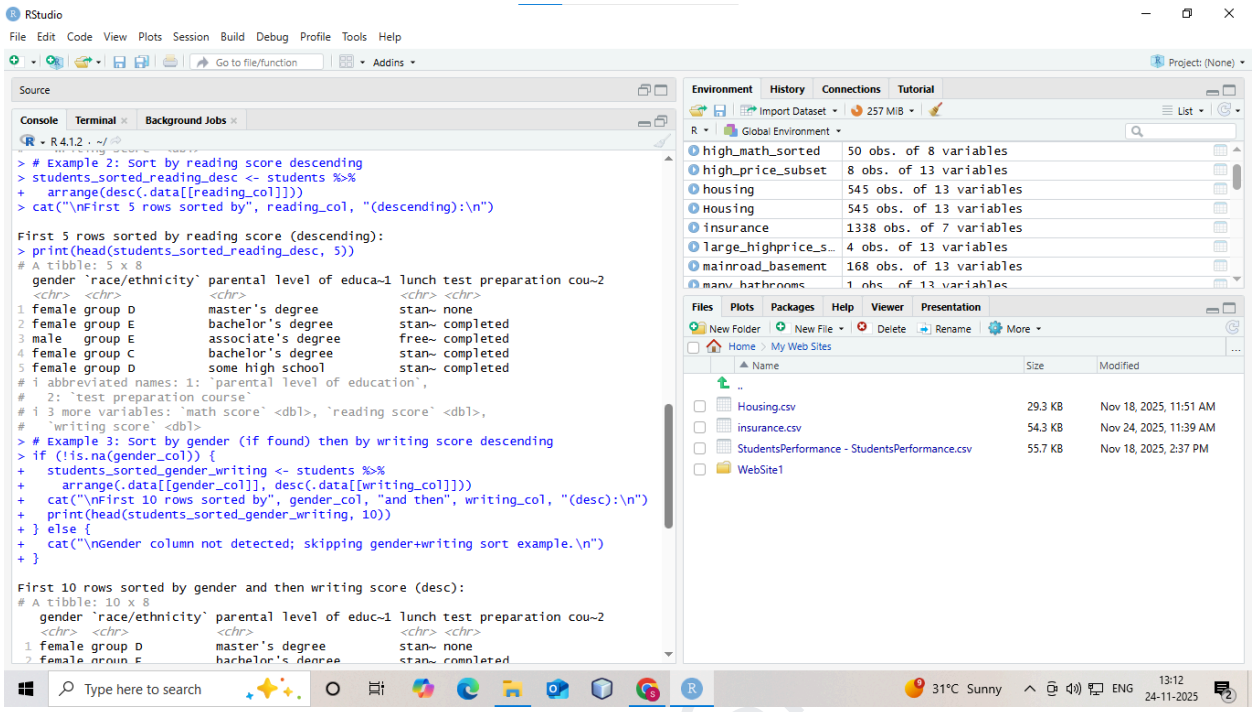
PRACTICAL NO:5

AIM:Sorting data using arrange() in R.



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> # Example 2: Sort by reading score descending
> students_sorted_reading_desc <- students %>%
+ arrange(desc(.data[[reading_col]]))
> cat("\nFirst 5 rows sorted by", reading_col, "(descending):\n")
First 5 rows sorted by reading score (descending):
> print(head(students_sorted_reading_desc, 5))
A tibble: 5 x 8
gender `race/ethnicity` parental level of educa~1 lunch test preparation cou~2
1 female group D master's degree stan~ none
2 female group E bachelor's degree stan~ completed
3 male group E associate's degree free~ completed
4 female group C bachelor's degree stan~ completed
5 female group D some high school stan~ completed
i abbreviated names: 1: `parental level of education`,
2: `test preparation course`
i 3 more variables: `math score` <dbl>, `reading score` <dbl>,
`writing score` <dbl>
> # Example 3: Sort by gender (if found) then by writing score descending
> if (!is.na(gender_col)) {
+ students_sorted_gender_writing <- students %>%
+ arrange(.data[[gender_col]], desc(.data[[writing_col]]))
+ cat("\nFirst 10 rows sorted by", gender_col, "and then", writing_col, "(desc):\n")
+ print(head(students_sorted_gender_writing, 10))
+ } else {
+ cat("\nGender column not detected; skipping gender+writing sort example.\n")
+ }
First 10 rows sorted by gender and then writing score (desc):
A tibble: 10 x 8
gender `race/ethnicity` parental level of educ~1 lunch test preparation cou~2
1 female group D master's degree stan~ none
Environment History Connections Tutorial
high_math_sorted 50 obs. of 8 variables
high_price_subset 8 obs. of 13 variables
housing 545 obs. of 13 variables
Housing 545 obs. of 13 variables
insurance 1338 obs. of 7 variables
large_highprice_s... 4 obs. of 13 variables
mainroad_basement 168 obs. of 13 variables
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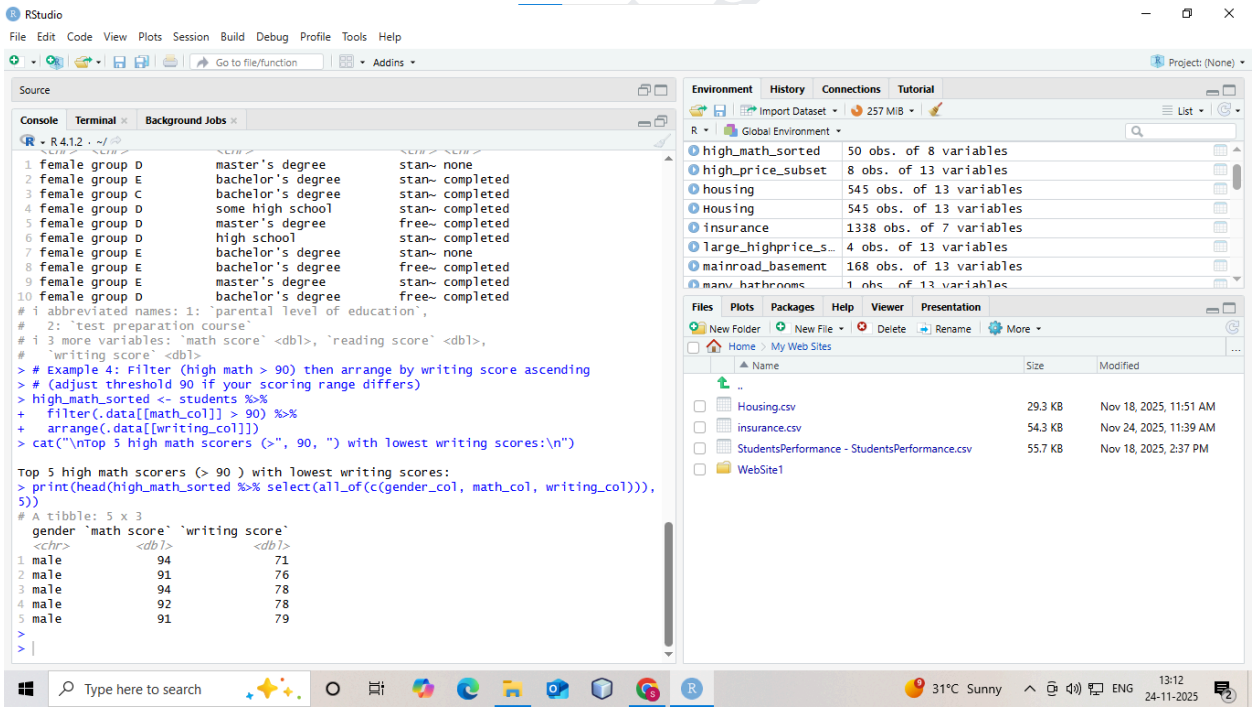
Name Size Modified
Housing.csv 29.3 KB Nov 18, 2025, 11:51 AM
insurance.csv 54.3 KB Nov 24, 2025, 11:39 AM
StudentsPerformance - StudentsPerformance.csv 55.7 KB Nov 18, 2025, 2:37 PM
WebSite1
Type here to search
31°C Sunny
ENG
13:12
24-11-2025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1 female group D master's degree stan~ none
2 female group E bachelor's degree stan~ completed
3 female group C bachelor's degree stan~ completed
4 female group D some high school stan~ completed
5 female group D master's degree free~ completed
6 female group D high school stan~ completed
7 female group E bachelor's degree stan~ none
8 female group E bachelor's degree free~ completed
9 female group E master's degree stan~ completed
10 female group D bachelor's degree free~ completed
i abbreviated names: 1: `parental level of education`,
2: `test preparation course`
i 3 more variables: `math score` <dbl>, `reading score` <dbl>,
`writing score` <dbl>
> # Example 4: Filter (high math > 90) then arrange by writing score ascending
> # (adjust threshold 90 if your scoring range differs)
> high_math_sorted <- students %>%
+ filter(.data[[math_col]] > 90) %>%
+ arrange(.data[[writing_col]])
> cat("\nTop 5 high math scorers (>", 90, ") with lowest writing scores:\n")
Top 5 high math scorers (> 90) with lowest writing scores:
> print(head(high_math_sorted %>% select(all_of(c(gender_col, math_col, writing_col))),
5))
A tibble: 5 x 3
gender `math score` `writing score`
1 male 94 71
2 male 91 76
3 male 94 78
4 male 92 78
5 male 91 79
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24-11-2025