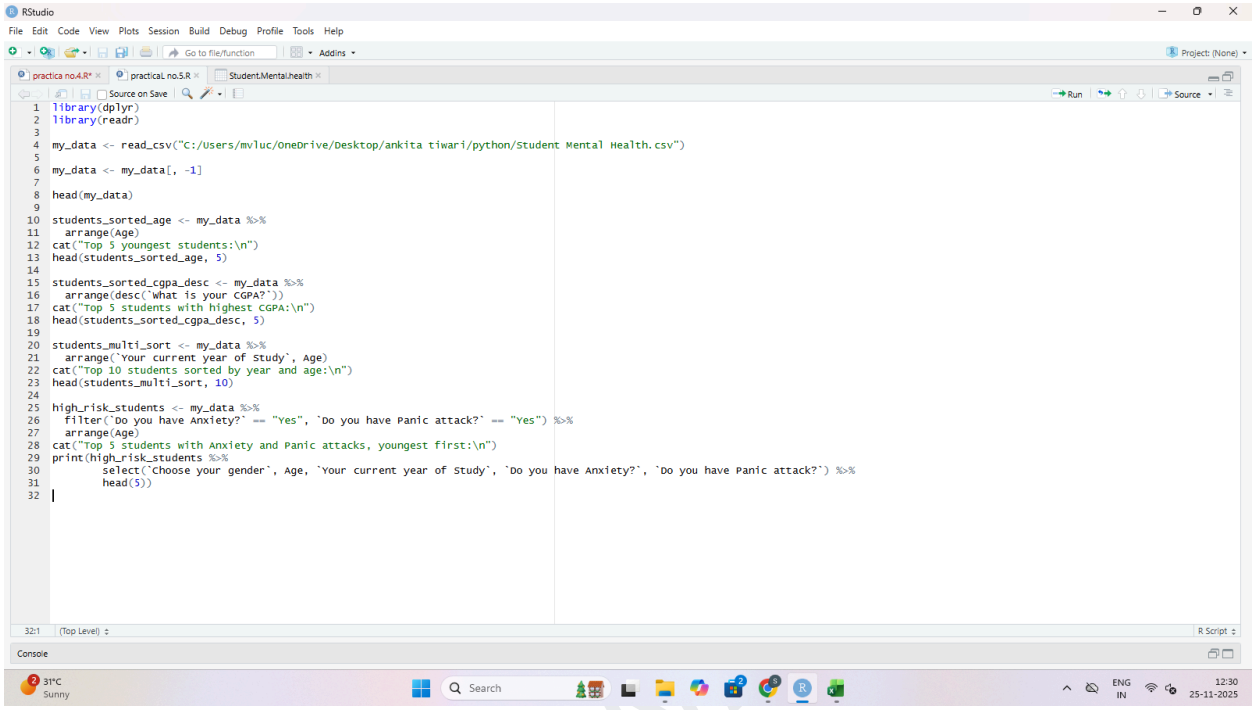
MVLU COLLEGE

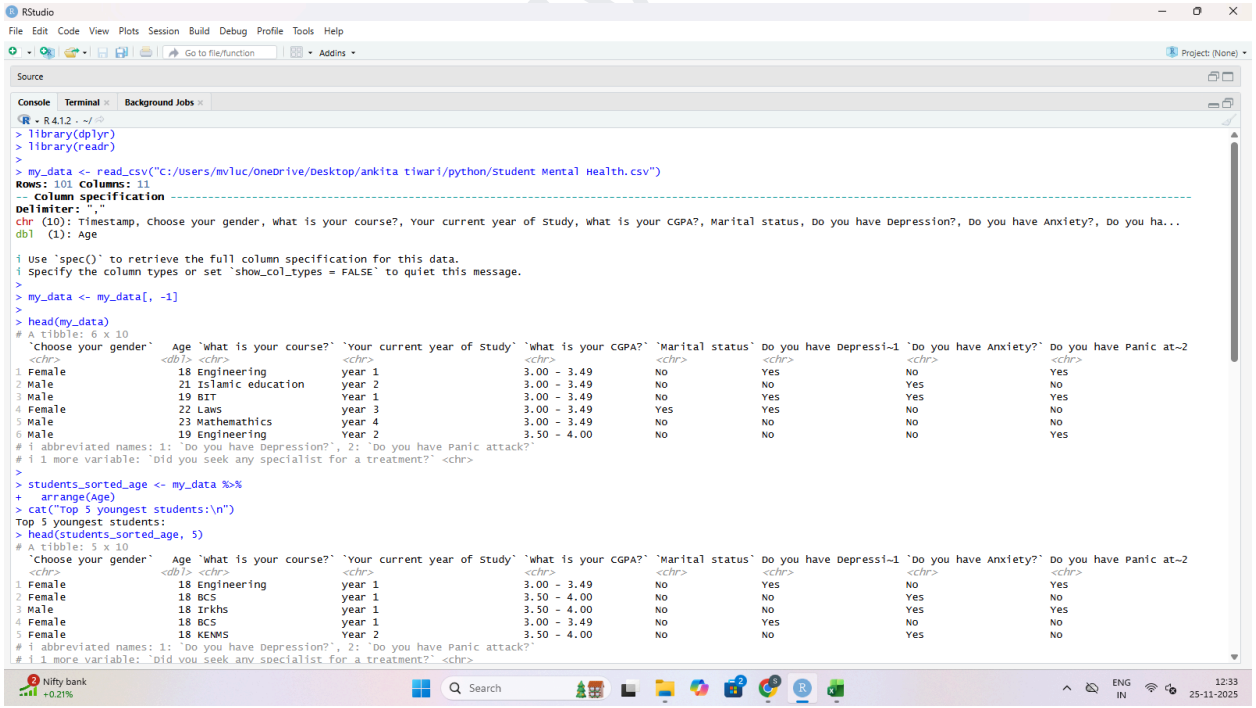
AIM: Sorting data using arrange() in R.

INPUT:



```
library(dplyr)
library(readr)

my_data <- read_csv("C:/Users/mvluc/OneDrive/Desktop/ankita tiwari/python/Student Mental Health.csv")

my_data <- my_data[, -1]

head(my_data)

students_sorted_age <- my_data %>%
  arrange(Age)
cat("Top 5 youngest students:\n")
head(students_sorted_age, 5)

students_sorted_cgpa_desc <- my_data %>%
  arrange(desc(`What is your CGPA?`))
cat("Top 5 students with highest CGPA:\n")
head(students_sorted_cgpa_desc, 5)

students_multi_sort <- my_data %>%
  arrange(`Your current year of Study`, Age)
cat("Top 10 students sorted by year and age:\n")
head(students_multi_sort, 10)

high_risk_students <- my_data %>%
  filter(`Do you have Anxiety?` == "Yes", `Do you have Panic attack?` == "Yes") %>%
  arrange(Age)
cat("Top 5 students with Anxiety and Panic attacks, youngest first:\n")
print(high_risk_students %>%
        select(`Choose your gender`, Age, `Your current year of Study`, `Do you have Anxiety?`, `Do you have Panic attack?`) %>%
        head(5))
```

OUTPUT:



```
> library(dplyr)
> library(readr)
>
> my_data <- read_csv("C:/Users/mvluc/OneDrive/Desktop/ankita tiwari/python/Student Mental Health.csv")
Rows: 101 Columns: 11
-- Column specification --------------------------------------------------------
Delimiter: ","
chr (10): Timestamp, Choose your gender, What is your course?, Your current year of Study, What is your CGPA?, Marital status, Do you have Depression?, Do you have Anxiety?, Do you ha...
dbl  (1): Age

i Use `spec()` to retrieve the full column specification for this data.
i Specify the column types or set `show_col_types = FALSE` to quiet this message.
>
> my_data <- my_data[, -1]
>
> head(my_data)
# A tibble: 6 x 10
  `Choose your gender`   Age `What is your course?` `Your current year of Study` `What is your CGPA?` `Marital status` Do you have Depressi~1 `Do you have Anxiety?` Do you have Panic at~2
  <chr>                <dbl> <chr>                  <chr>                       <chr>                 <chr>            <chr>                 <chr>                  <chr>
1 Female                  18 Engineering            year 1                      3.00 - 3.49           No               Yes                   No                     Yes
2 Male                    21 Islamic education      year 2                      3.00 - 3.49           No               No                    Yes                    No
3 Male                    19 BIT                    Year 1                      3.00 - 3.49           No               Yes                   Yes                    Yes
4 Female                  22 Laws                   year 3                      3.00 - 3.49           Yes              Yes                   No                     No
5 Male                    23 Mathemathics           year 4                      3.00 - 3.49           No               No                    No                     No
6 Male                    19 Engineering            Year 2                      3.50 - 4.00           No               No                    No                     Yes
# i abbreviated names: 1: `Do you have Depression?`, 2: `Do you have Panic attack?`
# i 1 more variable: `Did you seek any specialist for a treatment?` <chr>
>
> students_sorted_age <- my_data %>%
+   arrange(Age)
> cat("Top 5 youngest students:\n")
Top 5 youngest students:
> head(students_sorted_age, 5)
# A tibble: 5 x 10
  `Choose your gender`   Age `What is your course?` `Your current year of Study` `What is your CGPA?` `Marital status` Do you have Depressi~1 `Do you have Anxiety?` Do you have Panic at~2
  <chr>                <dbl> <chr>                  <chr>                       <chr>                 <chr>            <chr>                 <chr>                  <chr>
1 Female                  18 Engineering            year 1                      3.00 - 3.49           No               Yes                   No                     Yes
2 Female                  18 BCS                    year 1                      3.50 - 4.00           No               No                    Yes                    No
3 Male                    18 Irkhs                  year 1                      3.50 - 4.00           No               No                    Yes                    Yes
4 Female                  18 BCS                    year 1                      3.00 - 3.49           No               Yes                   No                     No
5 Female                  18 KENMS                  Year 2                      3.50 - 4.00           No               No                    Yes                    No
# i abbreviated names: 1: `Do you have Depression?`, 2: `Do you have Panic attack?`
# i 1 more variable: `Did you seek any specialist for a treatment?` <chr>
```

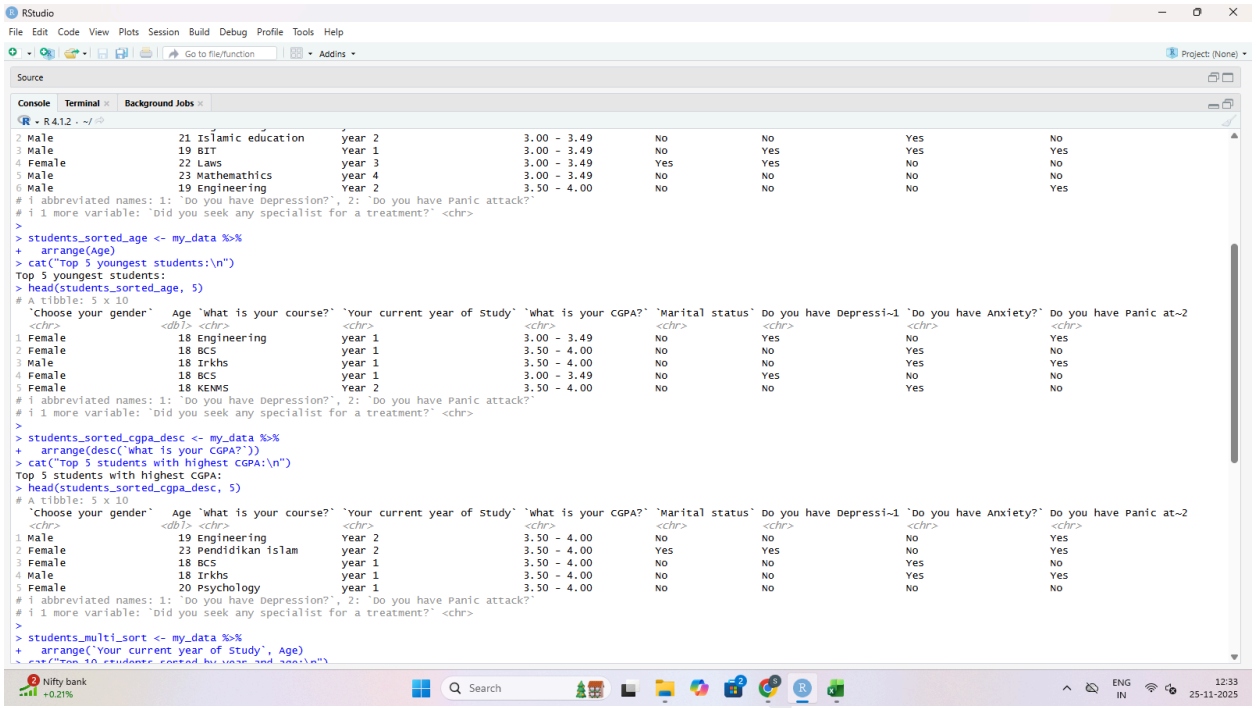
ANKITA TIWARI

SYCS

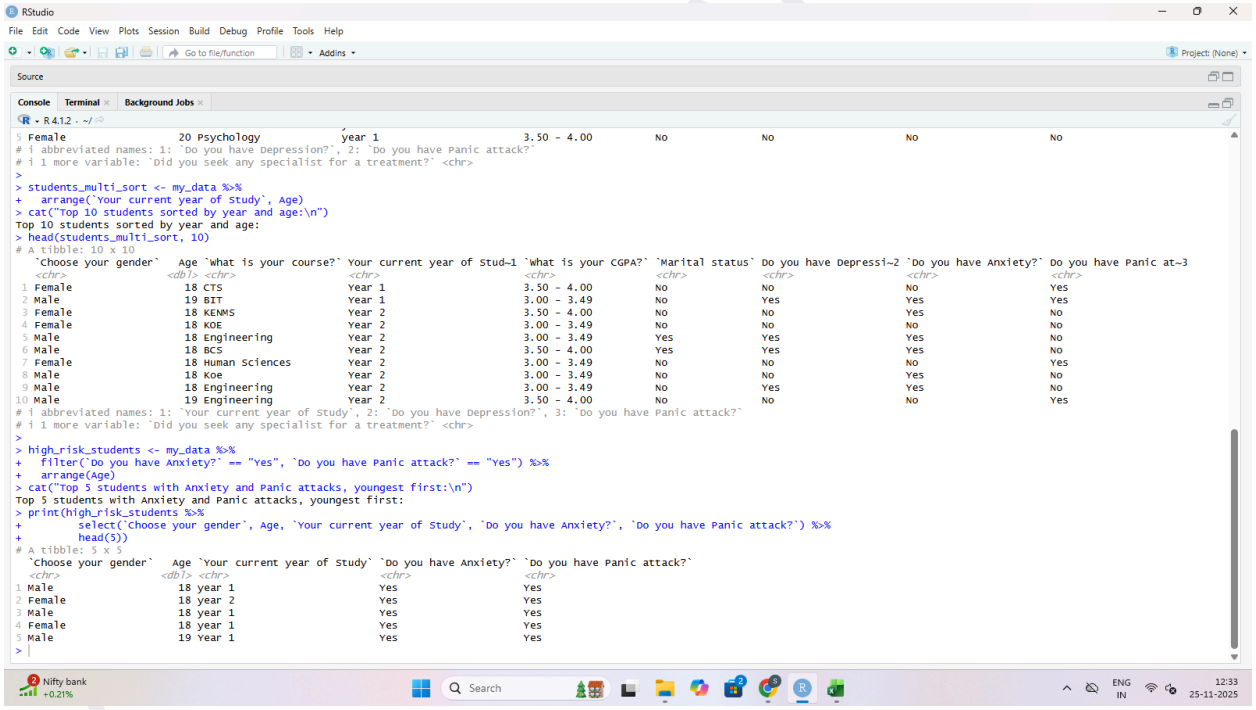
S122

Data Analysis with SAS / SPSS /R PRACTICAL NO.5

MVLU COLLEGE



```
> students_sorted_age <- my_data %>%
+   arrange(Age)
> cat("Top 5 youngest students:\n")
Top 5 youngest students:
> head(students_sorted_age, 5)
# A tibble: 5 x 10
  `Choose your gender`   Age `What is your course?` `Your current year of Study` `What is your CGPA?` `Marital status` Do you have Depressi~1 `Do you have Anxiety?` Do you have Panic at~2
  <chr>                <dbl> <chr>                  <chr>                      <chr>                <chr>              <chr>              <chr>                  <chr>
1 Female                  18 Engineering            year 1                     3.00 - 3.49          No                 Yes                No                     Yes
2 Female                  18 BCS                    year 1                     3.50 - 4.00          No                 No                 Yes                    No
3 Male                    18 Irkhs                  year 1                     3.50 - 4.00          No                 No                 Yes                    Yes
4 Female                  18 BCS                    year 1                     3.00 - 3.49          No                 Yes                No                     No
5 Female                  18 KENMS                  Year 2                     3.50 - 4.00          No                 No                 Yes                    No
# i abbreviated names: 1: `Do you have Depression?`, 2: `Do you have Panic attack?`
# i 1 more variable: `Did you seek any specialist for a treatment?` <chr>
>
> students_sorted_cgpa_desc <- my_data %>%
+   arrange(desc(`What is your CGPA?`))
> cat("Top 5 students with highest CGPA:\n")
Top 5 students with highest CGPA:
> head(students_sorted_cgpa_desc, 5)
# A tibble: 5 x 10
  `Choose your gender`   Age `What is your course?` `Your current year of Study` `What is your CGPA?` `Marital status` Do you have Depressi~1 `Do you have Anxiety?` Do you have Panic at~2
  <chr>                <dbl> <chr>                  <chr>                      <chr>                <chr>              <chr>              <chr>                  <chr>
1 Male                    19 Engineering            Year 2                     3.50 - 4.00          No                 No                 No                     Yes
2 Female                  23 Pendidikan Islam       year 2                     3.50 - 4.00          Yes                Yes                No                     Yes
3 Female                  18 BCS                    year 1                     3.50 - 4.00          No                 No                 Yes                    No
4 Male                    18 Irkhs                  year 1                     3.50 - 4.00          No                 No                 Yes                    Yes
5 Female                  20 Psychology             year 1                     3.50 - 4.00          No                 No                 No                     No
# i abbreviated names: 1: `Do you have Depression?`, 2: `Do you have Panic attack?`
# i 1 more variable: `Did you seek any specialist for a treatment?` <chr>
>
> students_multi_sort <- my_data %>%
+   arrange(`Your current year of Study`, Age)
```



```
5 Female                  20 Psychology             year 1                     3.50 - 4.00          No                 No                 No                     No
# i abbreviated names: 1: `Do you have Depression?`, 2: `Do you have Panic attack?`
# i 1 more variable: `Did you seek any specialist for a treatment?` <chr>
>
> students_multi_sort <- my_data %>%
+   arrange(`Your current year of Study`, Age)
> cat("Top 10 students sorted by year and age:\n")
Top 10 students sorted by year and age:
> head(students_multi_sort, 10)
# A tibble: 10 x 10
   `Choose your gender`   Age `What is your course?` `Your current year of Stud~1 `What is your CGPA?` `Marital status` Do you have Depressi~2 `Do you have Anxiety?` Do you have Panic at~3
   <chr>                <dbl> <chr>                  <chr>                       <chr>                <chr>              <chr>              <chr>                  <chr>
 1 Female                  18 CTS                    Year 1                      3.50 - 4.00          No                 No                 No                     Yes
 2 Male                    19 BIT                    Year 1                      3.00 - 3.49          No                 Yes                Yes                    Yes
 3 Female                  18 KENMS                  Year 2                      3.50 - 4.00          No                 No                 Yes                    No
 4 Female                  18 KOE                    Year 2                      3.00 - 3.49          No                 No                 No                     No
 5 Male                    18 Engineering            Year 2                      3.00 - 3.49          Yes                Yes                Yes                    No
 6 Male                    18 BCS                    Year 2                      3.50 - 4.00          Yes                Yes                Yes                    No
 7 Female                  18 Human Sciences         Year 2                      3.00 - 3.49          No                 No                 No                     Yes
 8 Male                    18 Koe                    Year 2                      3.00 - 3.49          No                 No                 Yes                    No
 9 Male                    18 Engineering            Year 2                      3.00 - 3.49          No                 Yes                Yes                    No
10 Male                    19 Engineering            Year 2                      3.50 - 4.00          No                 No                 No                     Yes
# i abbreviated names: 1: `Your current year of Study`, 2: `Do you have Depression?`, 3: `Do you have Panic attack?`
# i 1 more variable: `Did you seek any specialist for a treatment?` <chr>
>
> high_risk_students <- my_data %>%
+   filter(`Do you have Anxiety?` == "Yes", `Do you have Panic attack?` == "Yes") %>%
+   arrange(Age)
> cat("Top 5 students with Anxiety and Panic attacks, youngest first:\n")
Top 5 students with Anxiety and Panic attacks, youngest first:
> print(high_risk_students %>%
+         select(`Choose your gender`, Age, `Your current year of Study`, `Do you have Anxiety?`, `Do you have Panic attack?`) %>%
+         head(5))
# A tibble: 5 x 5
  `Choose your gender`   Age `Your current year of Study` `Do you have Anxiety?` `Do you have Panic attack?`
  <chr>                <dbl> <chr>                        <chr>                  <chr>
1 Male                    18 year 1                       Yes                    Yes
2 Female                  18 year 2                       Yes                    Yes
3 Male                    18 year 1                       Yes                    Yes
4 Female                  18 year 1                       Yes                    Yes
5 Male                    19 Year 1                       Yes                    Yes
>
```

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Data Analysis with SAS / SPSS /R PRACTICAL NO.5