

# MVLU COLLEGE

**AIM:** Applying conditional filters subset() or filter() in R.

## INPUT:

The screenshot shows the RStudio interface with a script file open. The code in the script is as follows:

```
1 #install.packages("dplyr")
2 #install.packages("readr")
3
4 library(dplyr)
5 library(readr)
6
7 my_data <- read_csv("C:/users/mvluc/onedrive/desktop/ankita tiwari/python/Student Mental Health.csv")
8
9 my_data <- my_data[, -1]
10
11 head(my_data)
12
13 # 1. Female students
14 female_students <- subset(my_data, `choose your gender` == "Female")
15 cat("Number of female students:", nrow(female_students), "\n")
16 head(female_students)
17
18 depression_students <- subset(my_data, 'Do you have Depression?' == "Yes")
19 cat("Number of students with depression:", nrow(depression_students), "\n")
20 head(depression_students)
21
22 senior_or_panic <- subset(my_data, 'Your current year of study' %in% c("year 3", "year 4") | 'do you have Panic attack?' == "Yes")
23 cat("Number of seniors or students with panic attacks:", nrow(senior_or_panic), "\n")
24 head(senior_or_panic)
25
26 high_cgpa <- my_data %>%
27   filter("What is your CGPA?" %in% c("3.50 - 3.99", "4.00"))
28 cat("Number of students with high CGPA:", nrow(high_cgpa), "\n")
29 head(high_cgpa)
30
31 married_treated <- my_data %>%
32   filter("Marital status" == "Yes", "Did you seek any specialist for a treatment?" == "Yes")
33 cat("Number of married students who sought treatment:", nrow(married_treated), "\n")
34 head(married_treated)
35
36 anxiety_panic <- my_data %>%
37   filter("Do you have Anxiety?" == "Yes", "Do you have Panic attack?" == "Yes")
38 cat("Number of students with both Anxiety and Panic attacks:", nrow(anxiety_panic), "\n")
39 head(anxiety_panic)
40
```

## OUTPUT:

```
RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
practica no.4.R Student.Mental.health
Source on Save Run Source
8 # Load your dataset
9 my_data <- read_csv("C:/users/mvluc/OneDrive/Desktop/ankita tiwari/python/Student Mental Health.csv")
10
49:1 (Top Level) R Script

Console Terminal Background Jobs
R - R 4.1.2 - ~/...
>
> # Load your dataset
> 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.
>
> # Remove the first column if it's just an index
> my_data <- my_data[, -1]
>
> # View first few rows
> 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 Depression?" "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 Mathematics      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 more variable: 'Did you seek any specialist for a treatment?' <chr>
>
> # 1. Female students
> female_students <- subset(my_data, `choose your gender` == "Female")
> cat("Number of female students:", nrow(female_students), "\n")
Number of female students: 75
> head(female_students)
# 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 Depression?" "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 Engineering      year 1             3.00 - 3.49       No        Yes        No        Yes
3 Female            18 Engineering      year 1             3.00 - 3.49       No        Yes        Yes        Yes
4 Female            18 Engineering      year 1             3.00 - 3.49       No        Yes        Yes        Yes
5 Female            18 Engineering      year 1             3.00 - 3.49       No        Yes        Yes        Yes
6 Female            18 Engineering      year 1             3.00 - 3.49       No        Yes        Yes        Yes
```

ANKITA TIWARI

SYCS

S122

Data Analysis with SAS / SPSS /R PRACTICAL NO.4

# MVLU COLLEGE

RStudio

File Edit Code View Plots Session Build Debug Profile Tools Help

Go to file/function Addins

Project: (None)

practica.no.R Student.Mental.health

# Load your dataset

my\_data <- read\_csv("c:/users/mvluc/onedrive/desktop/ankita tiwari/python/Student Mental Health.csv")

Number of rows: 35

Number of columns: 10

Column names:

	Gender	Age	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 have Panic attack?
1	Female	24	Laws	year 3	3.00 - 3.49	Yes	Yes	No	No
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	Female	19	HUMAN Resources	Year 2	2.50 - 2.99	No	No	No	No
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>

> # 2. Students with Depression

depression\_students <- subset(my\_data, `Do you have Depression?` == "Yes")

> cat("Number of students with depression:", nrow(depression\_students), "\n")

Number of students with depression: 35

> head(depression\_students)

# 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 Depression~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 19 BIT year 1 3.00 - 3.49 No Yes Yes Yes  
3 Female 22 Laws year 3 3.00 - 3.49 Yes Yes No No  
4 Female 23 Pendidikan islam year 2 3.50 - 4.00 Yes Yes Yes Yes  
5 Female 24 Engineering year 3 3.50 - 4.00 Yes Yes No No  
6 Female 18 BCS year 1 3.00 - 3.49 No Yes No No  
# i abbreviated names: 1: 'Do you have Depression?', 2: 'Do you have Panic attack?'<chr>

> # 3. Students in year 3 or 4 OR have Panic attacks

senior\_or\_panic <- subset(my\_data, `your current year of study` %in% c("year 3", "year 4") | `do you have Panic attack?` == "Yes")

> cat("Number of seniors or students with panic attacks:", nrow(senior\_or\_panic), "\n")

Number of seniors or students with panic attacks: 43

> head(senior\_or\_panic)

# 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 Depression~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 19 BIT year 1 3.00 - 3.49 No Yes Yes Yes  
3 Female 22 Laws year 3 3.00 - 3.49 Yes Yes No No  
4 Male 23 Mathematics year 4 3.00 - 3.49 No No No No  
5 Male 19 Engineering year 2 3.50 - 4.00 No No No Yes  
# i more variable: 'Did you seek any specialist for a treatment?' <chr>

> # 4. Students with both Anxiety and Panic attacks

senior\_anxiety\_panic <- subset(my\_data, `your current year of study` %in% c("year 3", "year 4") & `do you have Anxiety?` == "Yes" & `do you have Panic attack?` == "Yes")

> cat("Number of students with both Anxiety and Panic attacks:", nrow(senior\_anxiety\_panic), "\n")

Number of students with both Anxiety and Panic attacks: 13

> head(senior\_anxiety\_panic)

# 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 Depression~1 'Do you have Anxiety?' 'Do you have Panic at~2  
<chr> <dbl> <chr> <chr> <chr> <chr> <chr> <chr> <chr>  
1 Female 24 BIT year 3 3.50 - 4.00 Yes Yes Yes Yes  
2 Male 18 BCS year 2 3.50 - 4.00 Yes Yes Yes No  
3 Female 24 Engineering year 2 2.50 - 2.99 Yes Yes No Yes  
4 Female 23 ALA year 1 2.50 - 2.99 Yes Yes No Yes  
# i abbreviated names: 1: 'Do you have Depression?', 2: 'Do you have Panic attack?'<chr>

> # 5. Married students who have sought specialist treatment

married\_treated <- my\_data %>%  
+ filter(`Marital status` == "yes", `Did you seek any specialist for a treatment?` == "yes")

> cat("Number of married students who sought treatment:", nrow(married\_treated), "\n")

Number of married students who sought treatment: 4

> head(married\_treated)

# A tibble: 4 x 10

'choose your gender' Age 'what is your course?' 'Your current year of study' 'What is your CGPA?' 'Marital status' Do you have Depression~1 'Do you have Anxiety?' 'Do you have Panic at~2  
<chr> <dbl> <chr> <chr> <chr> <chr> <chr> <chr> <chr>  
1 Female 24 BIT year 3 3.50 - 4.00 Yes Yes Yes Yes  
2 Male 18 BCS year 2 3.50 - 4.00 Yes Yes Yes No  
3 Female 24 Engineering year 2 2.50 - 2.99 Yes Yes No Yes  
4 Female 23 ALA year 1 2.50 - 2.99 Yes Yes No Yes  
# i more variable: 'Did you seek any specialist for a treatment?' <chr>

> # 6. Students with both Anxiety and Panic attacks

anxiety\_panic <- my\_data %>%  
+ filter(`Do you have Anxiety?` == "Yes", `Do you have Panic attack?` == "Yes")

> cat("Number of students with both Anxiety and Panic attacks:", nrow(anxiety\_panic), "\n")

Number of students with both Anxiety and Panic attacks: 13

> head(anxiety\_panic)

# 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 Depression~1 'Do you have Anxiety?' 'Do you have Panic at~2  
<chr> <dbl> <chr> <chr> <chr> <chr> <chr> <chr> <chr>  
1 Male 19 BIT year 1 3.00 - 3.49 No Yes Yes Yes  
2 Male 18 Irkhs year 1 3.50 - 4.00 No No Yes Yes  
3 Female 24 ENM year 4 3.00 - 3.49 Yes Yes Yes Yes  
4 Female 18 Marine science year 2 3.50 - 4.00 Yes Yes Yes Yes  
5 Female 23 BCS year 3 3.50 - 4.00 No Yes Yes Yes  
6 Female 24 BIT year 3 3.50 - 4.00 Yes Yes Yes Yes  
# i abbreviated names: 1: 'Do you have Depression?', 2: 'Do you have Panic attack?'<chr>

> # i 1 more variable: 'Did you seek any specialist for a treatment?' <chr>

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Search

ENG IN 12:24 25-11-2025

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Project: (None)

practica.no.R Student.Mental.health

# Load your dataset

my\_data <- read\_csv("c:/users/mvluc/onedrive/desktop/ankita tiwari/python/Student Mental Health.csv")

Number of rows: 35

Number of columns: 10

Column names:

	Gender	Age	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 have Panic attack?
1	Female	24	Laws	year 3	3.00 - 3.49	Yes	Yes	No	No
2	Male	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	Female	19	HUMAN Resources	Year 2	2.50 - 2.99	No	No	No	No
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?'<chr>

> # 2. Students with Depression

depression\_students <- subset(my\_data, `Do you have Depression?` == "Yes")

> cat("Number of students with depression:", nrow(depression\_students), "\n")

Number of students with depression: 35

> head(depression\_students)

# 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 Depression~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 19 BIT year 1 3.00 - 3.49 No Yes Yes Yes  
3 Female 22 Laws year 3 3.00 - 3.49 Yes Yes No No  
4 Female 23 Pendidikan islam year 2 3.50 - 4.00 Yes Yes Yes Yes  
5 Female 24 Engineering year 3 3.50 - 4.00 Yes Yes No No  
6 Female 18 BCS year 1 3.00 - 3.49 No Yes No No  
# i abbreviated names: 1: 'Do you have Depression?', 2: 'Do you have Panic attack?'<chr>

> # 3. Students in year 3 or 4 OR have Panic attacks

senior\_or\_panic <- subset(my\_data, `your current year of study` %in% c("year 3", "year 4") | `do you have Panic attack?` == "Yes")

> cat("Number of seniors or students with panic attacks:", nrow(senior\_or\_panic), "\n")

Number of seniors or students with panic attacks: 43

> head(senior\_or\_panic)

# 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 Depression~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 19 BIT year 1 3.00 - 3.49 No Yes Yes Yes  
3 Female 22 Laws year 3 3.00 - 3.49 Yes Yes No No  
4 Male 23 Mathematics year 4 3.00 - 3.49 No No No No  
5 Male 19 Engineering year 2 3.50 - 4.00 No No No Yes  
# i more variable: 'Did you seek any specialist for a treatment?' <chr>

> # 4. Students with both Anxiety and Panic attacks

senior\_anxiety\_panic <- subset(my\_data, `your current year of study` %in% c("year 3", "year 4") & `do you have Anxiety?` == "Yes" & `do you have Panic attack?` == "Yes")

> cat("Number of students with both Anxiety and Panic attacks:", nrow(senior\_anxiety\_panic), "\n")

Number of students with both Anxiety and Panic attacks: 13

> head(senior\_anxiety\_panic)

# 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 Depression~1 'Do you have Anxiety?' 'Do you have Panic at~2  
<chr> <dbl> <chr> <chr> <chr> <chr> <chr> <chr> <chr>  
1 Female 24 BIT year 3 3.50 - 4.00 Yes Yes Yes Yes  
2 Male 18 BCS year 2 3.50 - 4.00 Yes Yes Yes No  
3 Female 24 Engineering year 2 2.50 - 2.99 Yes Yes No Yes  
4 Female 23 ALA year 1 2.50 - 2.99 Yes Yes No Yes  
# i more variable: 'Did you seek any specialist for a treatment?' <chr>

> # 5. Married students who have sought specialist treatment

married\_treated <- my\_data %>%  
+ filter(`Marital status` == "yes", `Did you seek any specialist for a treatment?` == "yes")

> cat("Number of married students who sought treatment:", nrow(married\_treated), "\n")

Number of married students who sought treatment: 4

> head(married\_treated)

# A tibble: 4 x 10

'choose your gender' Age 'what is your course?' 'Your current year of study' 'What is your CGPA?' 'Marital status' Do you have Depression~1 'Do you have Anxiety?' 'Do you have Panic at~2  
<chr> <dbl> <chr> <chr> <chr> <chr> <chr> <chr> <chr>  
1 Female 24 BIT year 3 3.50 - 4.00 Yes Yes Yes Yes  
2 Male 18 BCS year 2 3.50 - 4.00 Yes Yes Yes No  
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4 Female 23 ALA year 1 2.50 - 2.99 Yes Yes No Yes  
# i more variable: 'Did you seek any specialist for a treatment?' <chr>

> # 6. Students with both Anxiety and Panic attacks

anxiety\_panic <- my\_data %>%  
+ filter(`Do you have Anxiety?` == "Yes", `Do you have Panic attack?` == "Yes")

> cat("Number of students with both Anxiety and Panic attacks:", nrow(anxiety\_panic), "\n")

Number of students with both Anxiety and Panic attacks: 13

> head(anxiety\_panic)

# 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 Depression~1 'Do you have Anxiety?' 'Do you have Panic at~2  
<chr> <dbl> <chr> <chr> <chr> <chr> <chr> <chr> <chr>  
1 Male 19 BIT year 1 3.00 - 3.49 No Yes Yes Yes  
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3 Female 24 ENM year 4 3.00 - 3.49 Yes Yes Yes Yes  
4 Female 18 Marine science year 2 3.50 - 4.00 Yes Yes Yes Yes  
5 Female 23 BCS year 3 3.50 - 4.00 No Yes Yes Yes  
6 Female 24 BIT year 3 3.50 - 4.00 Yes Yes Yes Yes  
# i abbreviated names: 1: 'Do you have Depression?', 2: 'Do you have Panic attack?'<chr>

> # i 1 more variable: 'Did you seek any specialist for a treatment?' <chr>

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SYCS

S122

Data Analysis with SAS / SPSS /R PRACTICAL NO.4