

## MVLU COLLEGE PRACTICAL NO.7

Aim: Selecting and dropping variables using select() in R. import dataset.

Code:-

```
RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Go to file/function Addins Project: (None)

# 7. Selecting and dropping variables using select() in R
# 1. IMPORT DATASET
library(dplyr)

# *** IMPORTANT: UPDATE FILE PATH HERE ***
# Placeholder: Use the file name from your screenshot, but you must replace
# "path/to/your/file/" with your actual directory path, e.g.,
# "D:/Haris126/Fastest Fifties - 2018.csv"
cricket <- read.csv("path/to/your/file/Fastest Fifties - 2018.csv")

print("--- Original Dataset (First 3 rows) ---")
print(head(cricket, 3))

# 2. SELECTING VARIABLES (Keeping columns)
# Method A: Select specific columns by name
# Scenario: We only want the Player Name, Runs scored, and the opponent (Against)
selected_cols <- cricket
select(Player, Runs, Against)

print("--- Selected specific columns ---")
print(head(selected_cols, 3))

# Method B: Select a range of adjacent columns
# Scenario: Select everything from 'Player' to '4s'
range_cols <- cricket
select(Player:4s)

# Note: The column name '4s' is used exactly as it appears in the Excel data.
print("--- Selected range of columns (Player through 4s) ---")
```

Environment History Connections Tutorial

Object	Class	Attributes
Global Environment	Environment	
dropped_one	data.frame	106 obs. of 9 variables
dropped_range	data.frame	106 obs. of 9 variables
Fastest.Fiftie...	data.frame	107 obs. of 9 variables
merged_data	data.frame	106 obs. of 10 variables
range_cols	data.frame	106 obs. of 9 variables
Retail.Product	data.frame	4362 obs. of 5 variables
starts_with_p	data.frame	106 obs. of 9 variables

Files Plots Packages Help Viewer Presentation

Name	Size	Modified
tuei_sales.csv	706 B	Sep 16, 2023, 8:35 AM
GIS DataBase		
IISExpress		
My Music		
My Pictures		
My Videos		
My Web Sites		
R		
SM PRACTICAL - II 20.txt	1.2 KB	Aug 22, 2025, 3:02 PM
SM PRACTICAL - II.txt	1.2 KB	Aug 22, 2025, 3:01 PM
total_bills.csv	1.2 KB	Sep 18, 2025, 8:47 AM
Virtual Machines		
Visual Studio 2022		
WindowsPowerShell		

```
RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Go to file/function Addins Project: (None)

# Method B: Select a range of adjacent columns
# Scenario: Select everything from 'Player' to '4s'
range_cols <- cricket
select(Player:4s)

# Note: The column name '4s' is used exactly as it appears in the Excel data.
print("--- Selected range of columns (Player through 4s) ---")
print(head(range_cols, 3))

# Method C: Select using helper functions
# Scenario: Select columns that start with "P" (Pos, Player)
starts_with_p <- cricket
select(starts_with("P"))

print("--- Selected columns starting with 'P' (Pos, Player) ---")
print(head(starts_with_p, 3))

# 3. DROPPING VARIABLES (Removing columns)
# We use the minus sign (-) to remove variables
# Method A: Drop a single specific column
# Scenario: Remove the 'venue' column
dropped_one <- cricket
select(-venue)

print("--- Dataset with 'venue' dropped ---")
print(names(dropped_one)) # Printing names to verify it's gone

# Method B: Drop multiple columns
# Scenario: Remove '6s' and 'BF' (Balls Faced)
dropped_multiple <- cricket
```

Environment History Connections Tutorial

Object	Class	Attributes
Global Environment	Environment	
dropped_one	data.frame	106 obs. of 9 variables
dropped_range	data.frame	106 obs. of 9 variables
Fastest.Fiftie...	data.frame	107 obs. of 9 variables
merged_data	data.frame	106 obs. of 10 variables
range_cols	data.frame	106 obs. of 9 variables
Retail.Product	data.frame	4362 obs. of 5 variables
starts_with_p	data.frame	106 obs. of 9 variables

Files Plots Packages Help Viewer Presentation

Name	Size	Modified
tuei_sales.csv	706 B	Sep 16, 2023, 8:35 AM
GIS DataBase		
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Virtual Machines		
Visual Studio 2022		
WindowsPowerShell		

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The screenshot shows the RStudio interface with a script editor on the left and the Environment pane on the right. The script editor contains R code for dropping variables from a dataset named 'cricket'. The code includes comments and print statements to verify the results of three different methods: dropping a single column, dropping multiple columns, and dropping a range of columns.

```
42 print(--- Selected Columns Starting with 'P' (Pos: Player) ---)
43 print(head(starts_with_p, 3))
44
45 # 3. DROPPING VARIABLES (Removing Columns)
46 #
47 # We use the minus sign (-) to remove variables
48
49 # Method A: Drop a single specific column
50 # Scenario: Remove the 'venue' column
51 dropped_one <- cricket
52 select(-venue)
53
54 print(--- Dataset with 'venue' dropped ---)
55 print(names(dropped_one)) # Printing names to verify it's gone
56
57 # Method B: Drop multiple columns
58 # Scenario: Remove '6s' and 'BF' (Balls Faced)
59 dropped_multiple <- cricket
60 select(-6, -BF)
61 # Note: The column name '6s' is used exactly as it appears in the Excel data.
62
63 print(--- Dataset with '6s' and 'BF' dropped ---)
64 print(names(dropped_multiple))
65
66 # Method C: Drop a range of columns
67 # Scenario: Remove everything from '4s' to 'Match_Date'
68 dropped_range <- cricket
69 select(-(4:Match_Date))
70
71 print(--- Dataset with range '4s' to 'Match_Date' dropped ---)
72 print(names(dropped_range))
73
74
75
```

The Environment pane on the right shows the following objects:

Object	Size	Modified
dropped_one	106 obs. of 9 variables	
dropped_range	106 obs. of 9 variables	
Fastest.Fiftie...	107 obs. of 9 variables	
merged_data	106 obs. of 10 variables	
range_cols	106 obs. of 9 variables	
Retail.Product	4362 obs. of 5 variables	
starts_with_p	106 obs. of 9 variables	

Output:

The screenshot shows the RStudio interface with the Console pane on the left and the Environment pane on the right. The Console pane displays the output of the R code, including the first three rows of the 'cricket' dataset and the result of selecting specific columns. An error message is also shown in the Console pane.

```
> ## *** IMPORTANT: UPDATE FILE PATH HERE ***
> # Placeholder: Use the file name from your screenshot, but you must replace
> # "path/to/your/file/" with your actual directory path, e.g.,
> # "D:/Haris126/Fastest Fifties - 2018.csv"
> cricket <- read.csv("path/to/your/file/Fastest Fifties - 2018.csv")
Error in file(file, "rt") : cannot open the connection
In addition: warning message:
In file(file, "rt") :
cannot open file 'path/to/your/file/Fastest Fifties - 2018.csv': No such file or directory

> print(--- Original Dataset (First 3 rows) ---)
[1] --- Original Dataset (First 3 rows) ---
> print(head(cricket, 3))
  POS Player Runs BF X4s X6s Against Venue Match.Date
1  1  KL Rahul  51 14  6  4  DC IS Bindra Stadium 08 April 2018
2  2  Ishan Kishan  62 17  5  6  KKR  Eden Gardens  09 May 2018
3  3  Sunil Narine  50 17  4  5  RCB  Eden Gardens  08 April 2018
> # Method A: Select specific columns by name
> # Scenario: We only want the Player Name, Runs scored, and the Opponent (Against)
> selected_cols <- cricket
> select(Player, Runs, Against)
Error in select(Player, Runs, Against) : object 'Player' not found

> print(--- Selected Specific columns ---)
[1] --- Selected Specific columns ---
> print(head(selected_cols, 3))
  POS Player Runs BF X4s X6s Against Venue Match.Date
1  1  KL Rahul  51 14  6  4  DC IS Bindra Stadium 08 April 2018
2  2  Ishan Kishan  62 17  5  6  KKR  Eden Gardens  09 May 2018
3  3  Sunil Narine  50 17  4  5  RCB  Eden Gardens  08 April 2018
```

The Environment pane on the right shows the following objects:

Object	Size	Modified
dropped_one	106 obs. of 9 variables	
dropped_range	106 obs. of 9 variables	
Fastest.Fiftie...	107 obs. of 9 variables	
merged_data	106 obs. of 10 variables	
range_cols	106 obs. of 9 variables	
Retail.Product	4362 obs. of 5 variables	
selected_cols	106 obs. of 9 variables	
starts_with_p	106 obs. of 9 variables	

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```
RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Go to file/function Addins
Project: (None)

Source
Console Terminal Background Jobs
R 4.1.2 ~
2 2 Ishan Kishan 62 17 5 6 KKR Eden Gardens 09 May 2018
3 3 Sunil Narine 50 17 4 5 RCB Eden Gardens 08 April 2018
> select(Player:4)

Error in select(Player:4) : object 'Player' not found

> print("--- Selected Range of Columns (Player through 4s) ---")
[1] "--- Selected Range of Columns (Player through 4s) ---"
> print(head(range_cols, 3))
POS Player Runs BF X4s X6s Against Venue Match.Date
1 1 KL Rahul 51 14 6 4 DC IS Bindra Stadium 08 April 2018
2 2 Ishan Kishan 62 17 5 6 KKR Eden Gardens 09 May 2018
3 3 Sunil Narine 50 17 4 5 RCB Eden Gardens 08 April 2018
> # Method C: Select using helper functions
> # Scenario: Select columns that start with "P" (POS, Player)
> starts_with_p <- cricket
> select(starts_with("P"))

Error:
! 'starts_with()' must be used within a 'selecting' function.
i see ?tidyselect::faq-selection-context for details.
Run 'rlang::last_trace()' to see where the error occurred.

> print("--- Selected columns starting with 'P' (POS, Player) ---")
[1] "--- Selected columns starting with 'P' (POS, Player) ---"
> print(head(starts_with_p, 3))
POS Player Runs BF X4s X6s Against Venue Match.Date
1 1 KL Rahul 51 14 6 4 DC IS Bindra Stadium 08 April 2018
2 2 Ishan Kishan 62 17 5 6 KKR Eden Gardens 09 May 2018
3 3 Sunil Narine 50 17 4 5 RCB Eden Gardens 08 April 2018
> # Method A: Drop a single specific column
> # Scenario: Remove the 'Venue' column
> dropped_one <- cricket
> select(-Venue)
```

Environment History Connections Tutorial  
R Global Environment  
cricket 106 obs. of 9 variables  
dropped\_range 106 obs. of 9 variables  
Fastest.Fiftie... 107 obs. of 9 variables  
merged\_data 106 obs. of 10 variables  
range\_cols 106 obs. of 9 variables  
Retail.Product 4362 obs. of 5 variables  
selected\_cols 106 obs. of 9 variables  
starts\_with\_p 106 obs. of 9 variables

Files Plots Packages Help Viewer Presentation  
Home  
Name Size Modified  
tuei\_sales.csv 700 B Sep 10, 2023, 6:53 AM  
GIS DataBase  
IISExpress  
My Music  
My Pictures  
My Videos  
My Web Sites  
R  
SM PRACTICAL - II 20.txt 1.2 KB Aug 22, 2023, 3:02 PM  
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Virtual Machines  
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WindowsPowerShell

12:23  
01-12-2025

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The image displays two screenshots of the RStudio environment, showing the process of dropping columns from a dataset. The top screenshot shows the initial state where the 'Venue' column is dropped, resulting in an error: "Error in select(-Venue) : object 'Venue' not found". The bottom screenshot shows the final state where the '6s' and 'BF' columns are dropped, resulting in an error: "Error in useMethod('select') : no applicable method for 'select' applied to an object of class 'c('double', 'numeric')'".

**Top Screenshot:**

```
R - R4.1.2 ~\> select(-Venue)

Error in select(-Venue) : object 'Venue' not found

> print("--- Dataset with 'Venue' dropped ---")
[1] "--- Dataset with 'Venue' dropped ---"
> print(names(dropped_one)) # Printing names to verify it's gone
[1] "pos"      "Player"   "Runs"     "BF"       "X4s"      "X6s"      "Against"
[8] "Venue"    "Match.Date"
> # Method B: Drop multiple columns
> # Scenario: Remove '6s' and 'BF' (Balls Faced)
> dropped_multiple <- cricket
> select(-c(6, -BF))

Error in useMethod("select") :
  no applicable method for 'select' applied to an object of class "c('double', 'numeric')"
```

**Bottom Screenshot:**

```
R - R4.1.2 ~\> select(-c(6, -BF))

Error in useMethod("select") :
  no applicable method for 'select' applied to an object of class "c('double', 'numeric')"
```

**Environment Panel (Top Screenshot):**

Object	Obs.	Vars.
dropped_range	106	9
Fastest.Fiftie...	107	9
merged_data	106	10
range_cols	106	9
Retail.Product	4362	5
selected_cols	106	9
starts_with_p	106	9

**Environment Panel (Bottom Screenshot):**

Object	Obs.	Vars.
dropped_one	106	9
dropped_range	106	9
Fastest.Fiftie...	107	9
merged_data	106	10
range_cols	106	9
Retail.Product	4362	5
selected_cols	106	9
starts_with_p	106	9

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