

Sheth I.u.j. And sir m.v. college of arts science and commerce

Practical 7 R

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

The screenshot shows the RStudio interface with the following details:

- File Menu:** File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, Help.
- Toolbar:** Source on Save, Go to file/function, Run, Source.
- Code Editor:** The script editor contains R code demonstrating various ways to select and drop columns from a dataset named "disasters".
- Environment Tab:** Shows a list of objects in the workspace, including "global_dis.", "(1)", "iris", "iris_df", "iris_small", "medical_df", "medical_sm.", "range_cols", "selected_c.", "starts_wit.", "starts_wit.", "synthetic_...", "Top_20_Pak.", and "universiti".
- Files Tab:** Shows a tree view of files and folders on the local machine, including "Desktop", "dollar.c", "dollar.ex", "employee", "function", "GIS Data", "HealthC", "IISExpress", and "My Mac".
- Console Tab:** Shows the command "R Script" and a small icon.

```
3 # Load the dataset
4 disasters <- read.csv("C:/users/mvluc/Downloads/global_disaster_response_2018_2024_(1).csv")
5
6 # Original dataset (first 3 rows)
7 cat("\n--- Original Dataset (First 3 rows) ---\n")
8 print(head(disasters, 3))
9
10 # Select specific columns
11 selected_cols <- disasters %>%
12   select(country, disaster_type, severity_index, casualties)
13
14 cat("\n--- Selected Specific Columns ---\n")
15 print(head(selected_cols, 3))
16
17 # Example: Select columns starting with 'c' (like country, casualties)
18 starts_with_c <- disasters %>%
19   select(starts_with("c"))
20
21 cat("\n--- Selected Columns Starting with 'c' ---\n")
22 print(head(starts_with_c, 3))
23
24 # Drop a single column
25 dropped_one <- disasters %>%
26   select(-severity_index)
27
28 cat("\n--- Dataset with 'severity_index' dropped ---\n")
29 print(names(dropped_one))
30
31 # Drop multiple columns
32 dropped_multiple <- disasters %>%
33   select(-severity_index, -casualties)
34
35 cat("\n--- Dataset with 'severity_index' and 'casualties' dropped ---\n")
36 print(names(dropped_multiple))
37
38 # Drop a range of columns (from disaster_type to casualties)
39 dropped_range <- disasters %>%
40   select(-(disaster_type:casualties))
41
42 cat("\n--- Dataset with Range 'disaster_type' to 'casualties' Dropped ---\n")
43 print(names(dropped_range))
```

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R RStudio

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Source

Console Background Jobs

```

> library(dplyr)
>
> # Load the dataset
> disasters <- read.csv("C:/Users/mvluc/Downloads/global_disaster_response_2018_2024 (1).csv")
>
> # original dataset (first 3 rows)
> cat("\n--- Original Dataset (First 3 rows) ---\n")
> print(head(disasters, 3))
  date country disaster_type severity_index casualties economic_loss_usd response_time_hours aid_amount_usd response_efficiency_score
1 2021-01-31 Brazil  Earthquake      5.99        111     7934366          15.62    271603.79            83.21
2 2018-12-23 Brazil  Extreme Heat      6.53        100     8307649           5.03    265873.81            96.18
3 2020-08-10 India   Hurricane      1.55        22      765137            32.54    49356.49            60.40
  recovery_days latitude longitude
1          67   -30.613   -122.557
2          55   10.859   -159.194
3          22    0.643   -160.978
>
> # select specific columns
> selected_cols <- disasters %>%
+   select(country, disaster_type, severity_index, casualties)
>
> cat("\n--- Selected Specific Columns ---\n")
>
> print(head(selected_cols, 3))
  country disaster_type severity_index casualties
1  Brazil  Earthquake      5.99        111
2  Brazil  Extreme Heat      6.53        100
3  India   Hurricane      1.55        22
>
> # Example: Select columns starting with 'c' (like country, casualties)
> starts_with_c <- disasters %>%
+   select(starts_with("c"))
>
> cat("\n--- Selected columns Starting with 'c' ---\n")
>
> print(head(starts_with_c, 3))
  country casualties
1  Brazil       111
2  Brazil       100

```

R RStudio

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Console Background Jobs

```

--- Selected Columns starting with 'c' ---
> print(head(starts_with_c, 3))
  country casualties
1  Brazil       111
2  Brazil       100
3  India        22
>
> # drop a single column
> dropped_one <- disasters %>%
+   select(-severity_index)
>
> cat("\n--- Dataset with 'severity_index' Dropped ---\n")
>
--- Dataset with 'severity_index' Dropped ---
> print(names(dropped_one))
[1] "date"              "country"           "disaster_type"      "casualties"
[5] "economic_loss_usd" "response_time_hours" "aid_amount_usd"    "response_efficiency_score"
[9] "recovery_days"     "latitude"          "longitude"
>
> # drop multiple columns
> dropped_multiple <- disasters %>%
+   select(-severity_index, -casualties)
>
> cat("\n--- Dataset with 'severity_index' and 'casualties' Dropped ---\n")
>
--- Dataset with 'severity_index' and 'casualties' Dropped ---
> print(names(dropped_multiple))
[1] "date"              "country"           "disaster_type"      "economic_loss_usd"
[5] "response_time_hours" "aid_amount_usd"    "response_efficiency_score" "recovery_days"
[9] "latitude"          "longitude"
>
> # Drop a range of columns (from disaster_type to casualties)
> dropped_range <- disasters %>%
+   select(-(disaster_type:casualties))
>
> cat("\n--- Dataset with Range 'disaster_type' to 'casualties' Dropped ---\n")
>
--- Dataset with Range 'disaster_type' to 'casualties' Dropped ---
> print(names(dropped_range))
[1] "date"              "country"           "economic_loss_usd" "response_time_hours" "aid_amount_usd"
[6] "response_efficiency_score" "recovery_days"     "latitude"          "longitude"

```

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