

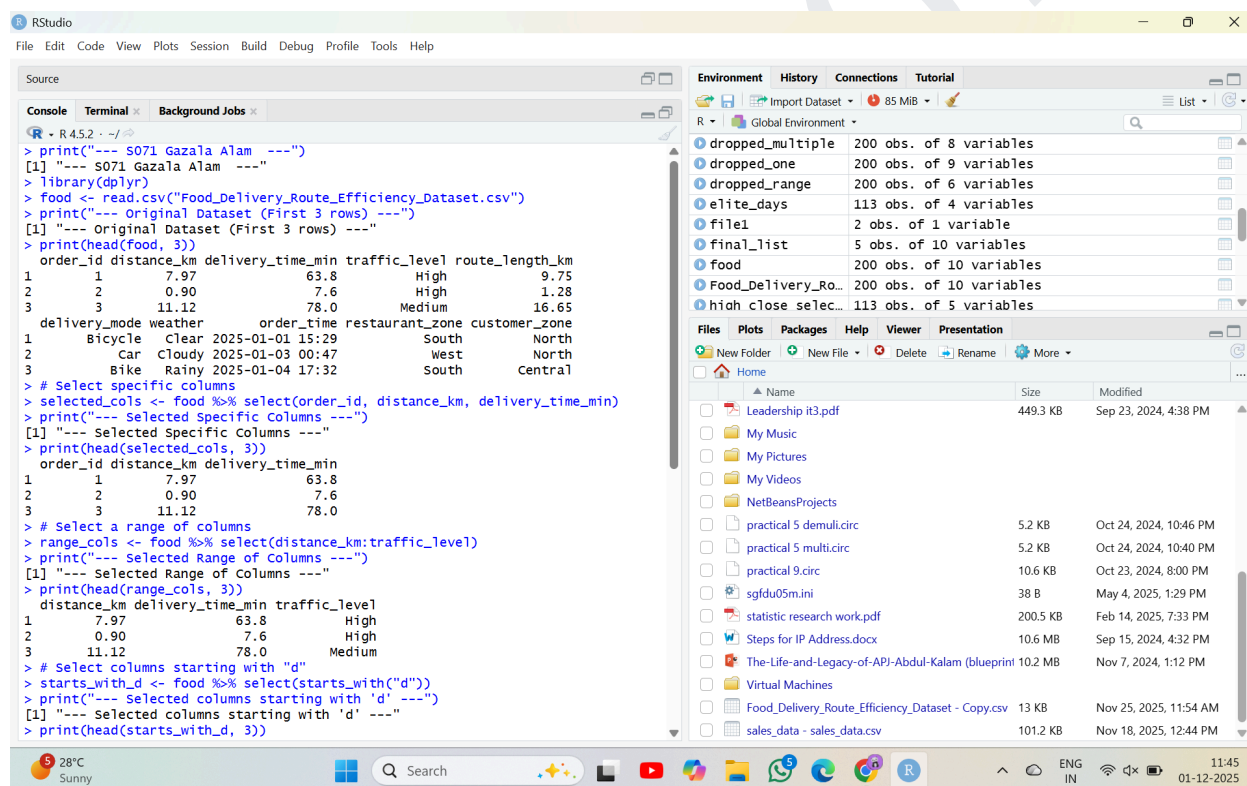
SHETH L.U.J AND SIR M.V COLLEGE

Subject: Data Analysis with SAS / SPSS /R

Practical no. 7

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

Outputs→



The screenshot displays the RStudio interface with the following components:

- Source Editor:** Contains R code for importing a dataset and performing variable selection and dropping.
- Console:** Shows the output of the R code, including the original dataset and the results of various selection and dropping operations.
- Environment:** Lists the objects in the global environment, including the original dataset and the results of the operations.
- Files:** Shows the file explorer with various files and folders.

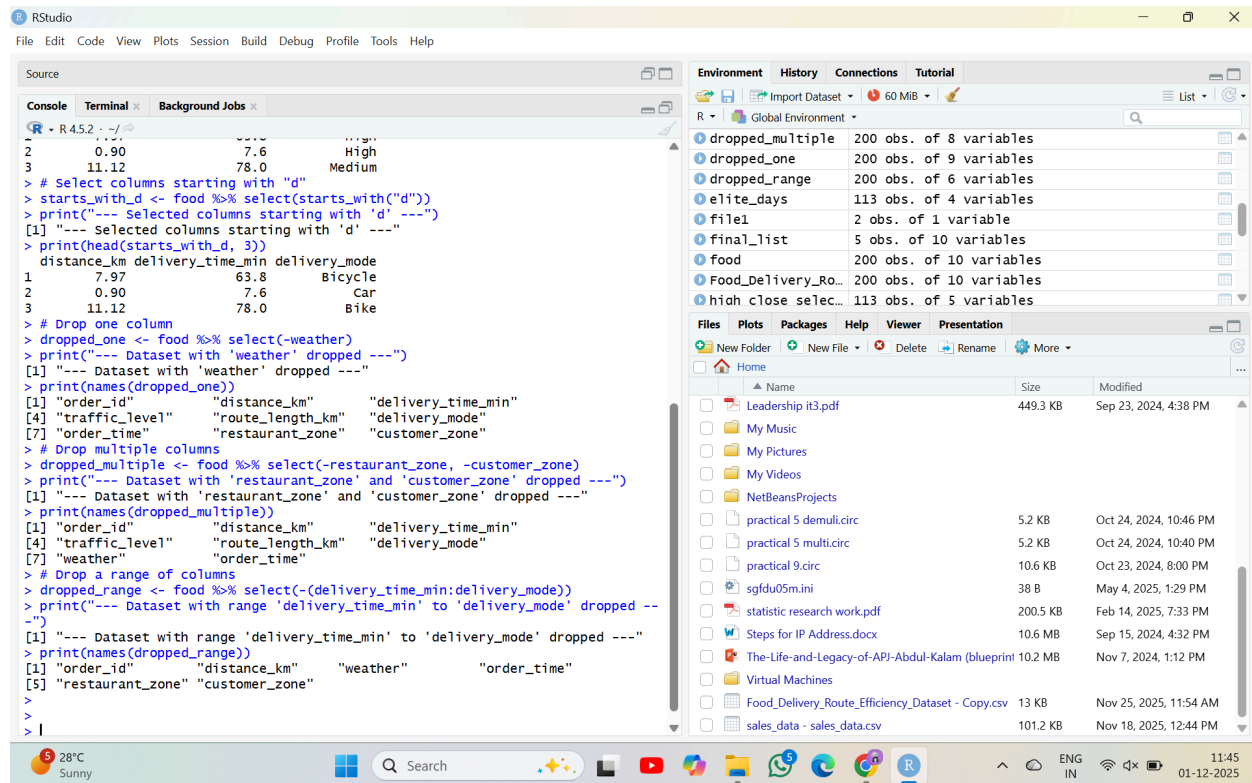
```
> print("--- S071 Gazala Alam ---")
[1] "--- S071 Gazala Alam ---"
> library(dplyr)
> food <- read.csv("Food_Delivery_Route_Efficiency_Dataset.csv")
> print("--- Original Dataset (First 3 rows) ---")
[1] "--- Original Dataset (First 3 rows) ---"
> print(head(food, 3))
  order_id distance_km delivery_time_min traffic_level route_length_km
1         1         7.97             63.8          High             9.75
2         2         0.90              7.6          High             1.28
3         3        11.12             78.0        Medium            16.65
  delivery_mode weather order_time restaurant_zone customer_zone
1      Bicycle   Clear 2025-01-01 15:29           South         North
2         Car   Cloudy 2025-01-03 00:47           West          North
3         Bike   Rainy 2025-01-04 17:32           South         Central
> # Select specific columns
> selected_cols <- food %>% select(order_id, distance_km, delivery_time_min)
> print("--- Selected Specific Columns ---")
[1] "--- Selected Specific Columns ---"
> print(head(selected_cols, 3))
  order_id distance_km delivery_time_min
1         1         7.97             63.8
2         2         0.90              7.6
3         3        11.12             78.0
> # Select a range of columns
> range_cols <- food %>% select(distance_km:traffic_level)
> print("--- Selected Range of Columns ---")
[1] "--- Selected Range of Columns ---"
> print(head(range_cols, 3))
  distance_km delivery_time_min traffic_level
1         7.97             63.8          High
2         0.90              7.6          High
3        11.12             78.0        Medium
> # Select columns starting with "d"
> starts_with_d <- food %>% select(starts_with("d"))
> print("--- Selected columns starting with 'd' ---")
[1] "--- Selected columns starting with 'd' ---"
> print(head(starts_with_d, 3))
```

The Environment pane shows the following objects:

- dropped_multiple: 200 obs. of 8 variables
- dropped_one: 200 obs. of 9 variables
- dropped_range: 200 obs. of 6 variables
- elite_days: 113 obs. of 4 variables
- file1: 2 obs. of 1 variable
- final_list: 5 obs. of 10 variables
- food: 200 obs. of 10 variables
- Food_Delivery_Ro...: 200 obs. of 10 variables
- high close selec...: 113 obs. of 5 variables

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The screenshot displays the RStudio environment with the following components:

- Source:** Contains the R script being executed.
- Console:** Shows the output of the R commands, including data frames and variable names.
- Environment:** Lists the objects in the global environment, such as `dropped_multiple`, `dropped_one`, `dropped_range`, `elite_days`, `file1`, `final_list`, `food`, `Food_Delivery_Ro...`, and `high close selec...`.
- Files:** Shows the file explorer with various files and folders, including `Leadership it3.pdf`, `My Music`, `My Pictures`, `My Videos`, `NetBeansProjects`, `practical 5 demul.circ`, `practical 5 multi.circ`, `practical 9.circ`, `sgfdu05m.ini`, `statistic research work.pdf`, `Steps for IP Address.docx`, `The-Life-and-Legacy-of-APJ-Abdul-Kalam (blueprint)`, `Virtual Machines`, `Food_Delivery_Route_Efficiency_Dataset - Copy.csv`, and `sales_data - sales_data.csv`.

```
R - R4.5.2 - ~/...
> # Select columns starting with "d"
> starts_with_d <- food %>% select(starts_with("d"))
> print("--- Selected columns starting with 'd' ---")
[1] "--- Selected columns starting with 'd' ---"
> print(head(starts_with_d, 3))
  distance_km delivery_time_min delivery_mode
1         7.97             63.8         Bicycle
2         0.90              7.6           Car
3        11.12             78.0           Bike

> # Drop one column
> dropped_one <- food %>% select(-weather)
> print("--- Dataset with 'weather' dropped ---")
[1] "--- Dataset with 'weather' dropped ---"
> print(names(dropped_one))
[1] "order_id"      "distance_km"   "delivery_time_min"
[4] "traffic_level" "route_length_km" "delivery_mode"
[7] "order_time"    "restaurant_zone" "customer_zone"

> # Drop multiple columns
> dropped_multiple <- food %>% select(-restaurant_zone, -customer_zone)
> print("--- Dataset with 'restaurant_zone' and 'customer_zone' dropped ---")
[1] "--- Dataset with 'restaurant_zone' and 'customer_zone' dropped ---"
> print(names(dropped_multiple))
[1] "order_id"      "distance_km"   "delivery_time_min"
[4] "traffic_level" "route_length_km" "delivery_mode"
[7] "weather"       "order_time"

> # Drop a range of columns
> dropped_range <- food %>% select(-(delivery_time_min:delivery_mode))
> print("--- Dataset with range 'delivery_time_min' to 'delivery_mode' dropped ---")
[1] "--- Dataset with range 'delivery_time_min' to 'delivery_mode' dropped ---"
> print(names(dropped_range))
[1] "order_id"      "distance_km"   "weather"        "order_time"
[5] "restaurant_zone" "customer_zone"

> |
```