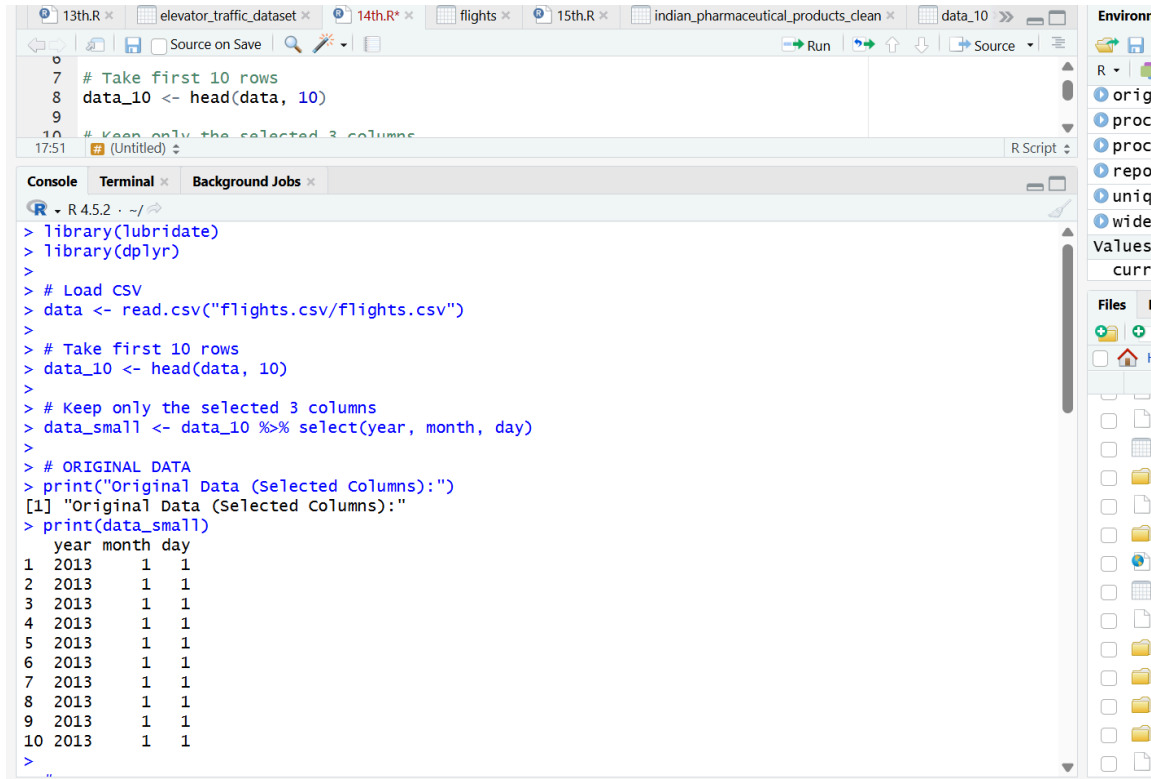


Sheth I.u.j. And sir m.v. college of arts science and commerce

Practical no.14th

Aim: Extracting date components using DATE functions (SAS), Date & Time Wizard (SPSS), and lubridate:: functions (R).



The screenshot shows the R Studio environment with several open files. The active script is '14th.R', which contains the following R code:

```
7 # Take first 10 rows
8 data_10 <- head(data, 10)
9
10 # Keep only the selected 3 columns
17:51 (Untitled) R Script
```

The console shows the execution of the code, including library loading, data reading, and the resulting data frame:

```
> library(lubridate)
> library(dplyr)
>
> # Load CSV
> data <- read.csv("flights.csv/flights.csv")
>
> # Take first 10 rows
> data_10 <- head(data, 10)
>
> # Keep only the selected 3 columns
> data_small <- data_10 %>% select(year, month, day)
>
> # ORIGINAL DATA
> print("Original Data (Selected Columns):")
[1] "Original Data (Selected Columns):"
> print(data_small)
  year month day
1  2013     1   1
2  2013     1   1
3  2013     1   1
4  2013     1   1
5  2013     1   1
6  2013     1   1
7  2013     1   1
8  2013     1   1
9  2013     1   1
10 2013     1   1
>
```

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File Edit Code View Plots Session Build Debug Profile Tools Help

Go to file/function Addins

13th.R elevator_traffic_dataset 14th.R flights 15th.R indian_pharmaceutical_products_clean data_10

```

7 # Take first 10 rows
8 data_10 <- head(data, 10)
9
10 # Keep only the selected 3 columns
17:51 (Untitled)

```

Environment History

R Global Environment

- original 539
- processed_... 10
- processed_... 10
- report 1 ol
- unique_data 10
- wide_data 273

Values

current_ti... 202

Files Plots Packages

Home

- drw.txt
- elevator_traffic_d
- flights.csv
- flights.csv.zip
- greenplant
- index.html
- indian_pharmace
- json-20240303.ja
- My Music
- My Pictures
- My Videos

```

+ mutate(
+   Actual_Date = make_date(year, month, day), # create Date from year, month, day
+   Year_Num = year(Actual_Date),
+   Month_Num = month(Actual_Date),
+   Month_Name = month(Actual_Date, label = TRUE),
+   Day_Num = day(Actual_Date),
+   Weekday_Num = wday(Actual_Date),
+   Weekday_Name = wday(Actual_Date, label = TRUE, abbr = FALSE),
+   Quarter = quarter(Actual_Date),
+   Day_of_Year = yday(Actual_Date)
+ )
> print("--- 2. Data with Extracted Date Components ---")
[1] "--- 2. Data with Extracted Date Components ---"
> print(processed_data)
  year month day Actual_Date Year_Num Month_Num Month_Name Day_Num Weekday_Num Weekday_Name Quarter
1 2013     1   1 2013-01-01    2013         1         Jan         1         3      Tuesday         1
2 2013     1   1 2013-01-01    2013         1         Jan         1         3      Tuesday         1
3 2013     1   1 2013-01-01    2013         1         Jan         1         3      Tuesday         1
4 2013     1   1 2013-01-01    2013         1         Jan         1         3      Tuesday         1
5 2013     1   1 2013-01-01    2013         1         Jan         1         3      Tuesday         1
6 2013     1   1 2013-01-01    2013         1         Jan         1         3      Tuesday         1
7 2013     1   1 2013-01-01    2013         1         Jan         1         3      Tuesday         1
8 2013     1   1 2013-01-01    2013         1         Jan         1         3      Tuesday         1
9 2013     1   1 2013-01-01    2013         1         Jan         1         3      Tuesday         1

```

10 # Keep only the selected 3 columns

17:51 (Untitled)

Console Terminal Background Jobs

R 4.5.2 ~/

```

9 2013     1   1 2013-01-01    2013         1         Jan         1         3      Tuesday         1
10 2013     1   1 2013-01-01    2013         1         Jan         1         3      Tuesday         1
  Day_of_Year
1           1
2           1
3           1
4           1
5           1
6           1
7           1
8           1
9           1
10          1
>
> # -----
> # 3. Current Time Extraction
> # -----
> current_time <- now()
>
> print("--- 3. Current Time Extraction ---")
[1] "--- 3. Current Time Extraction ---"
> print(paste("Current Year:", year(current_time)))
[1] "Current Year: 2025"
> print(paste("Current Month:", month(current_time)))
[1] "Current Month: 12"
> print(paste("Current Day:", day(current_time)))
[1] "Current Day: 10"
>

```