

**MVLU COLLEGE**  
**Data analysis with SAS/SSPR/R**  
**PRACTICAL NO.14**

**Aim:** 14. Extracting date components using lubridate:: functions (R).

**INPUT:**

```
install.packages("lubridate")
library(lubridate)
library(dplyr)

dates_df <- data.frame(
  Event_ID = 1:4,
  Date_String = c("2023-01-15", "2023-10-31", "2024-02-29", "2024-12-31")
)

processed_data <- dates_df %>%
  mutate(
    Actual_Date = ymd(Date_String),
    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("--- Data with Extracted Date Components ---")
print(processed_data)

current_time <- now()
print("--- Current Time Extraction ---")
print(paste("Current Year:", year(current_time)))
print(paste("Current Hour:", hour(current_time)))
print(paste("Current Minute:", minute(current_time)))
```

**OUTPUT:**

**NAME:HEMANI SINGH**  
**ROLL NO:S119**

# MVLU COLLEGE

## Data analysis with SAS/SSPR/R

### PRACTICAL NO.14

The screenshot shows the RStudio interface with the following components:

- Console:** Displays R code for creating a data frame, processing dates, and extracting current time components. The output shows a data frame with 4 rows and 8 columns, and the current time as 2025-01-15 11:11.
- Environment:** Lists objects in the global environment, including merged\_data, processed\_data, range\_cols, selected\_cols, split\_matrix, spotify, spotify\_data\_clean, starts\_with\_h, unique\_customers, and wide\_df.
- Files:** Shows the file explorer with a list of files and folders.
- Packages:** Shows the list of installed and available packages, including adpass, backports, base64enc, bit, bit64, blob, broom, BSDA, bslib, cachem, callr, cellranger, cli, clipr, conflicted, cpl, crayon, and curl.

```
> dates_df <- data.frame(
+   Event_ID = 1:4,
+   Date_String = c("2023-01-15", "2023-10-31", "2024-02-29", "2024-12-25")
+ )
>
> processed_data <- dates_df %>%
+   mutate(
+     Actual_Date = ymd(Date_String),
+     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("--- Data with Extracted Date Components ---")
[1] "--- Data with Extracted Date Components ---"
> print(processed_data)
  Event_ID Date_String Actual_Date Year_Num Month_Num Month_Name Day_Num
1        1 2023-01-15 2023-01-15    2023         1      Jan     15
2        2 2023-10-31 2023-10-31    2023        10      Oct     31
3        3 2024-02-29 2024-02-29    2024         2      Feb     29
4        4 2024-12-25 2024-12-25    2024        12      Dec     25
  weekday_Num weekday_Name Quarter Day_of_Year
1           1      Sunday         1          15
2           3    Tuesday         4          304
3           5   Thursday         1           60
4           4   Wednesday         4          360
>
> current_time <- now()
> print("--- Current Time Extraction ---")
[1] "--- Current Time Extraction ---"
> print(paste("Current Year:", year(current_time)))
[1] "Current Year: 2025"
> print(paste("Current Hour:", hour(current_time)))
[1] "Current Hour: 11"
> print(paste("Current Minute:", minute(current_time)))
[1] "Current Minute: 11"
>
```

NAME:HEMANI SINGH  
ROLL NO:S119