

MVLU COLLEGE.

PRACTICAL NO :- 14

AIM :- Extracting date components using lubridate:: functions (R).

CODE :-

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

```
events_df <- data.frame(
  EventCode = c("E101", "E102", "E103", "E104"),
  EventDate = c("2022-05-10", "2023-08-19", "2024-11-05", "2025-03-21")
)
```

2. PARSE AND EXTRACT DATE COMPONENTS

```
processed_data <- events_df %>%
  mutate(
    Parsed_Date = ymd(EventDate),           # Convert text to date format
    Year = year(Parsed_Date),              # Extract year
    Month_No = month(Parsed_Date),         # Extract month number
    Month_Name = month(Parsed_Date, label = TRUE), # Extract short month name
    Day_No = day(Parsed_Date),             # Extract day of month
    Weekday_No = wday(Parsed_Date),        # 1=Sun, 7=Sat
    Weekday_Name = wday(Parsed_Date, label = TRUE, abbr = FALSE), # Full weekday name
    Quarter = quarter(Parsed_Date),        # Quarter (1–4)
    Day_of_Year = yday(Parsed_Date)        # Day number (1–366)
  )
```

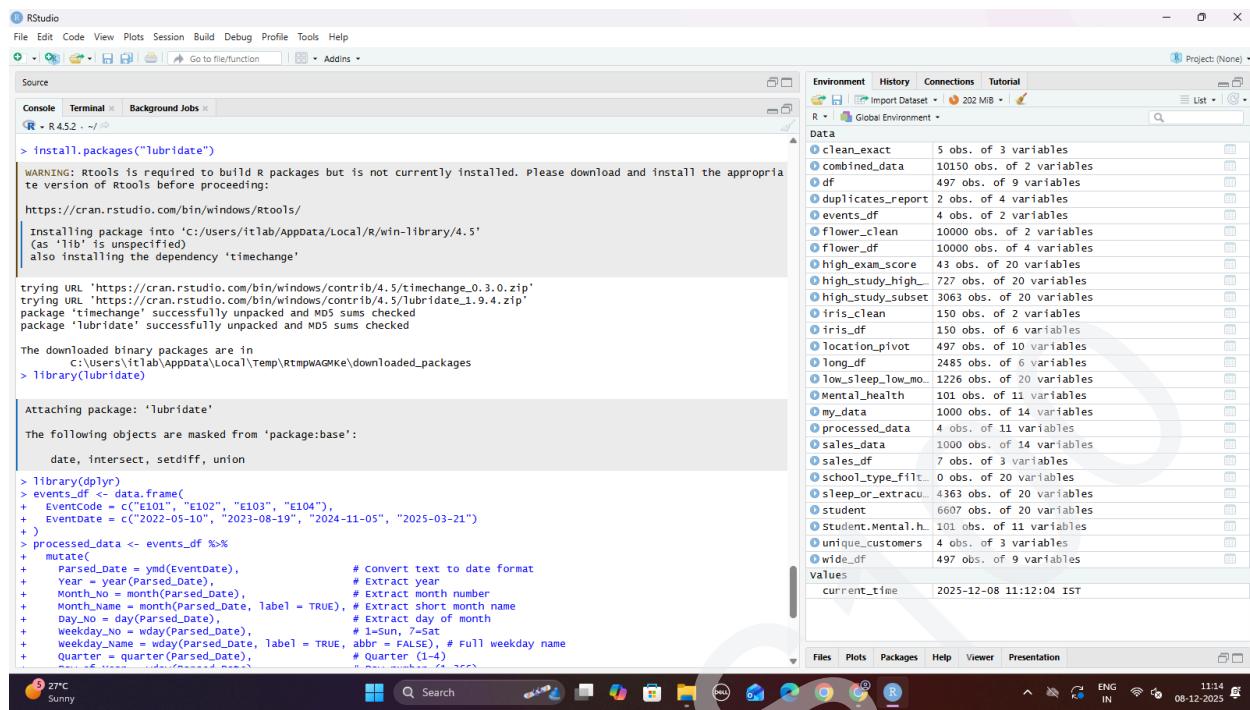
```
print("--- Extracted Components from New Dataset ---")
print(processed_data)
```

3. SYSTEM DATE / CURRENT DATE-TIME EXTRACTION

```
current_time <- now()

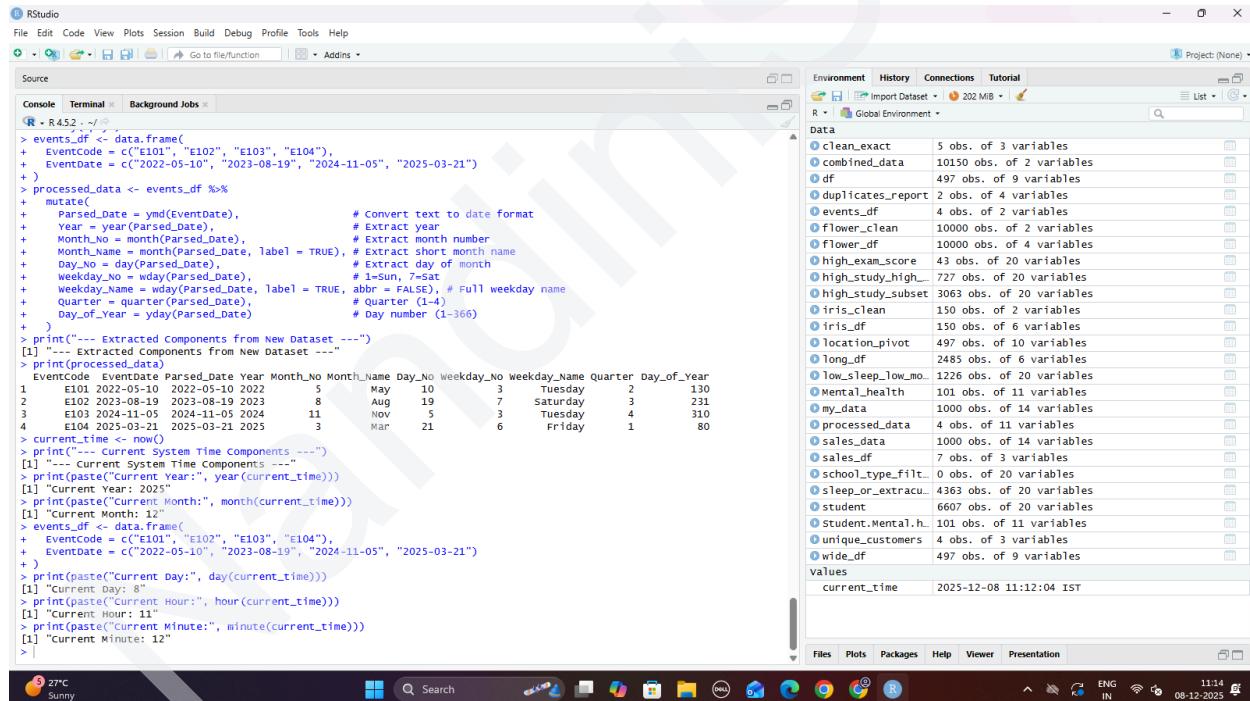
print("--- Current System Time Components ---")
print(paste("Current Year:", year(current_time)))
print(paste("Current Month:", month(current_time)))
print(paste("Current Day:", day(current_time))))
print(paste("Current Hour:", hour(current_time)))
print(paste("Current Minute:", minute(current_time)))
```

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The screenshot shows the RStudio interface with the following details:

- Console:** Displays the command `> install.packages("lubridate")` and its output, which includes a warning about Rtools not being installed and the successful download and unpacking of the lubridate package.
- Data View:** Shows a list of datasets available in the global environment, such as clean_exact, combined_data, df, duplicates_report, events_df, flower_clean, flower_df, high_exam_score, high_study_high_, high_study_subset, iris_clean, iris_df, location_pivot, long_df, low_sleep_low_mo, mental_health, my_data, processed_data, sales_data, sales_df, school_type_filt, sleep_or_extracu, student, student.Mental.h, unique_customers, and wide_df.
- Environment View:** Shows the current time as 2025-12-08 11:12:04 IST.
- Bottom Status Bar:** Shows system information including temperature (37°C), battery level (Sunny), and system date/time (08-12-2025).



The screenshot shows the RStudio interface with the following details:

- Console:** Displays the execution of R code to extract components from a dataset and print current system time components.
- Data View:** Shows a list of datasets available in the global environment, identical to the first screenshot.
- Environment View:** Shows the current time as 2025-12-08 11:12:04 IST.
- Bottom Status Bar:** Shows system information including temperature (37°C), battery level (Sunny), and system date/time (08-12-2025).