

MVLU COLLEGE

PRACTICAL NO. 6

AIM:. Combining and appending datasets using merge() or bind_rows() in R.

The screenshot displays the RStudio interface. The main editor window contains the following R code:

```
1 library(dplyr)
2 library(readr)
3 df1 <- read_csv("c:/Users/itlab/OneDrive/Documents/S105/Cleaned_BMW_Sales_Data.csv")
4 df2 <- read_csv("c:/Users/itlab/OneDrive/Documents/S105/Cleaned_Car_Price_Prediction.csv")
5 keys <- c("model", "year", "fuel_type", "transmission")
6 df1 <- df1 %>% mutate(across(all_of(keys), as.character))
7 df2 <- df2 %>% mutate(across(all_of(keys), as.character))
8 merged_inner <- inner_join(df1, df2, by = keys)
9 merged_left <- left_join(df1, df2, by = keys)
10 merged_full <- full_join(df1, df2, by = keys)
11 appended <- bind_rows(df1, df2)
12 cat("Rows in df1:", nrow(df1), "\n")
13 cat("Rows in df2:", nrow(df2), "\n")
14 cat("Rows in merged_inner:", nrow(merged_inner), "\n")
15 cat("Rows in merged_left:", nrow(merged_left), "\n")
16 cat("Rows in merged_full:", nrow(merged_full), "\n")
17 cat("Rows in appended:", nrow(appended), "\n")
18 write_csv(merged_inner, "merged_inner.csv")
19 write_csv(merged_left, "merged_left.csv")
20 write_csv(merged_full, "merged_full.csv")
21 write_csv(appended, "appended_rows.csv")
22 cat("Rows in inner join:", nrow(merged_inner), "\n")
23 cat("Rows in left join:", nrow(merged_left), "\n")
24 cat("Rows in full join:", nrow(merged_full), "\n")
25 cat("Rows in appended:", nrow(appended), "\n")
26
```

The Environment pane on the right shows the following objects:

Object	Size
appended	298 obs. of 17 variables
Cleaned_BMW_Sales...	99 obs. of 11 variables
Cleaned_Car_Price...	199 obs. of 10 variables
df1	99 obs. of 11 variables
df2	199 obs. of 10 variables
merged_full	294 obs. of 17 variables
merged_inner	4 obs. of 17 variables
merged_left	99 obs. of 17 variables

The Windows taskbar at the bottom shows the date and time as 01-12-2025, 11:18.

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The image displays two screenshots of the RStudio interface, showing R code execution and environment details.

Top Screenshot:

- Source:** R code for reading and merging CSV files. It includes comments and row counts for each step.
- Environment:** Lists objects in the Global Environment, including 'Data' objects like 'appended', 'Cleaned_BMW_Sales', 'Cleaned_Car_Price', 'df1', 'df2', 'merged_full', 'merged_inner', and 'merged_left'.
- Console:** Shows the execution of the code, including row counts and a warning message: "Error: Cannot open file for writing: * 'C:/mnt/data/merged_inner.csv'".

Bottom Screenshot:

- Source:** Continuation of R code, including a 'getwd()' call and further merging steps.
- Environment:** Similar to the top screenshot, showing the state of the environment after further code execution.
- Console:** Shows the execution of the code, including row counts and a warning message: "Error: Cannot open file for writing: * 'C:/mnt/data/merged_inner.csv'".