

PRACTICAL NO : 6

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

```

R - R4.5.2 - ~/
> library(dplyr) # For bind_rows
> # Dataset 1: supermarket.csv
> SuperMarket <- read_csv("Downloads/SuperMarket Analysis.csv")
Rows: 1000 Columns: 17
# Column specification
# delimiter: ","
chr (8): Invoice ID, Branch, City, Customer type, Gender, Product line, Date, P...
dbl (8): unit price, Quantity, Tax 5%, Sales, cogs, gross margin percentage, gr...
time (1): Time

i Use `spec()` to retrieve the full column specification for this data.
i Specify the column types or set `show_col_types = FALSE` to quiet this message.
> # Dataset 2: Retail.csv
> Features <- read_csv("Downloads/Features data set.csv")
Rows: 8190 Columns: 12
# Column specification
# delimiter: ","
chr (1): Date
dbl (10): Store, Temperature, Fuel_Price, MarkDown1, MarkDown2, MarkDown3, MarkD...
lg1 (1): ISHOLIDAY

i Use `spec()` to retrieve the full column specification for this data.
i Specify the column types or set `show_col_types = FALSE` to quiet this message.
> print("---- Data January (SuperMarket Analysis.csv) ----")
[1] "---- Data January (SuperMarket Analysis.csv) ----"
> print(head(SuperMarket))
# A tibble: 6 x 17
  Invoice ID Branch City Customer type Gender Product line Unit price
  <chr> <chr> <chr> <chr> <chr> <chr> <dbl>
1 750-67-8428 Alex Yangon Member Female Health and beau... 74.7
2 226-31-3081 Giza Naypyitaw Normal Female Electronic acce... 15.3
3 631-41-3108 Alex Yangon Normal Female Home and lifest... 46.3
4 123-19-1176 Alex Yangon Member Female Health and beau... 58.2
5 373-73-7910 Alex Yangon Member Female Sports and trav... 86.3
6 699-14-3026 Giza Naypyitaw Member Female Electronic acce... 85.4

```

```

R - R4.5.2 - ~/
# i 10 more variables: quantity <dbl>, Tax 5% <dbl>, Sales <dbl>, Date <chr>,
# Time <time>, Payment <chr>, cogs <dbl>, gross margin percentage <dbl>,
# gross income <dbl>, Rating <dbl>
> print("---- Data February (Features data set.csv) ----")
[1] "---- Data February (Features data set.csv) ----"
> print(head(Features))
# A tibble: 6 x 12
  Store date Temperature Fuel_Price MarkDown1 MarkDown2 MarkDown3 MarkDown4
  <dbl> <chr> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
1 1 05/02/2010 42.3 2.57 NA NA NA NA
2 1 12/02/2010 38.5 2.55 NA NA NA NA
3 1 19/02/2010 39.9 2.51 NA NA NA NA
4 1 26/02/2010 46.6 2.56 NA NA NA NA
5 1 05/03/2010 46.5 2.62 NA NA NA NA
6 1 12/03/2010 57.8 2.67 NA NA NA NA
# i 4 more variables: MarkDown5 <dbl>, CPI <dbl>, unemployment <dbl>,
# ISHOLIDAY <lg1>
> merged_data <- merge(SuperMarket, Features, by = "date")
> print("---- Merged Data (columns Added) ----")
[1] "---- Merged Data (columns Added) ----"
> print(head(merged_data))
[1] Date Invoice ID Branch City Customer type Gender Product line Unit price
[4] City customer type Branch
[7] Product line unit price Quantity
[10] Tax 5% Sales Time
[13] Payment cogs gross margin percentage
[16] gross income Rating Store
[19] Temperature Fuel_Price MarkDown1
[22] MarkDown2 MarkDown4
[25] MarkDown5 CPI Unemployment
[28] ISHOLIDAY
<0 rows> (or 0-length row.names)
# first five rows of SuperMarket, Features

```

The screenshot displays the RStudio environment with the following components:

- Source Editor:** Contains R code for merging data and binding rows. The code includes comments and variable names like `merged_data`, `final_list`, and `superMarket`.
- Console:** Shows the output of the R code, including a list of variables and their data types, and a preview of the `final_list` data frame.
- Environment:** Lists the objects in the global environment, including `Features`, `Features_data_set`, `final_list`, `housing`, `merged_data`, `my_data`, and `range_cols`.
- Files:** Shows a list of files in the current directory, including `practicals.pdf`, `Whols.zip`, and various RCG PRACTICAL files.

The console output shows the following data frame structure:

```
# A tibble: 6 x 28
#   Invoice ID Branch City Customer type Gender Product line Unit price
#   <chr> <chr> <chr> <chr> <chr> <chr> <dbl>
1 750-67-8428 Alex Yangon Member Female Health and beau_ 74.7
2 226-31-3081 Giza Naypyitaw Normal Female Electronic acce_ 15.3
3 631-41-3108 Alex Yangon Normal Female Home and lifest_ 46.3
4 123-19-1176 Alex Yangon Member Female Health and beau_ 58.2
5 373-73-7910 Alex Yangon Member Female Sports and trav_ 86.3
6 699-14-3026 Giza Naypyitaw Member Female Electronic acce_ 85.4
```