

SHETH L.U.J. AND SIR M.V. COLLEGE
DATA ANALYSIS WITH SAS/SPSS/R

PRACTICAL NO: 12

AIM:Combining datasets vertically (concatenation) using rbind() (R).

CODE:

The screenshot shows the RStudio interface with the following details:

- File Menu:** File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, Help.
- Toolbar:** Includes icons for file operations like Open, Save, Run, and Source.
- Code Editor:** Displays the R script for concatenating datasets. The script reads the Iris dataset, performs some initial cleaning, and then uses the `rbind()` function to combine it with the Flower dataset.
- Environment Tab:** Shows the global environment with various objects and their dimensions.
- Console Tab:** Shows the command-line interface where the script was run.
- Bottom Status Bar:** Shows system information like battery level, network, and date/time (11:01 AM 08-12-2025).

```

1 data(iris)
2
3 flower_df <- read.csv("flower_dataset.csv")
4
5 print("~~~ Data Structure Before Transformation ~~~")
6 print(names(iris))
7 print(names(flower_df))
8
9 iris_clean <- iris[, c("Species", "Sepal.Length")]
10 names(iris_clean) <- c("Species", "Height")
11
12 flower_clean <- flower_df[, c("species", "height_cm")]
13 names(flower_clean) <- c("species", "Height")
14
15
16 iris_clean$Height <- as.numeric(iris_clean$Height)
17 flower_clean$Height <- as.numeric(flower_clean$Height)
18
19 combined_data <- rbind(iris_clean, flower_clean)
20
21 print("~~~ Combined Data Summary ~~~")
22 print(paste("Iris rows:", nrow(iris_clean)))
23 print(paste("Flower rows:", nrow(flower_clean)))
24 print(paste("Total rows (Expected):", nrow(iris_clean) + nrow(flower_clean)))
25 print(paste("Total rows (Actual):", nrow(combined_data)))
26
27
28 print("~~~ Preview of Combined Data (Top and Bottom) ~~~")
29 print(head(combined_data))
30 print(tail(combined_data))

```

OUTPUT:

The screenshot shows the RStudio interface with the following details:

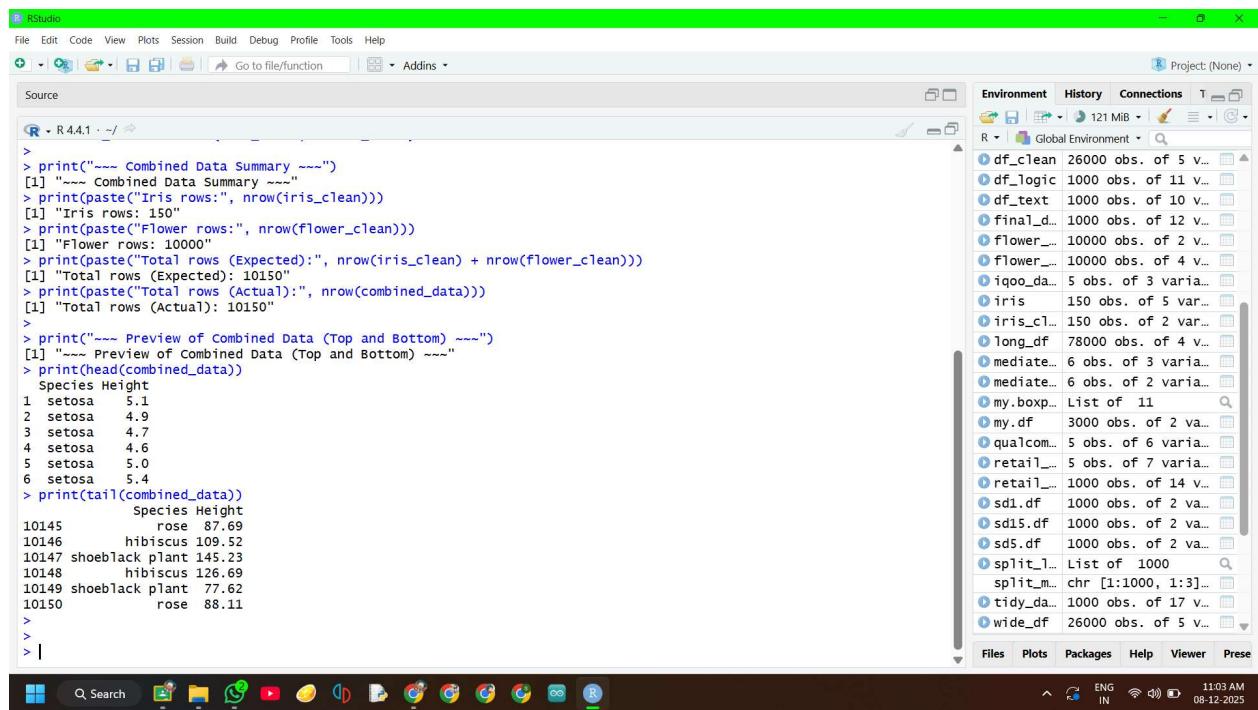
- File Menu:** File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, Help.
- Toolbar:** Includes icons for file operations like Open, Save, Run, and Source.
- Console Tab:** Displays the R session history, showing the execution of the script and its output.
- Environment Tab:** Shows the global environment with various objects and their dimensions.
- Bottom Status Bar:** Shows system information like battery level, network, and date/time (11:03 AM 08-12-2025).

```

> data(iris)
>
> flower_df <- read.csv("flower_dataset.csv")
>
> print("~~~ Data Structure Before Transformation ~~~")
[1] "~~~ Data Structure Before Transformation ~~"
> print(names(iris))
[1] "Sepal.Length" "Sepal.Width" "Petal.Length" "Petal.Width" "Species"
> print(names(flower_df))
[1] "species" "size" "fragrance" "height_cm"
>
> iris_clean <- iris[, c("Species", "Sepal.Length")]
> names(iris_clean) <- c("Species", "Height")
>
> flower_clean <- flower_df[, c("species", "height_cm")]
> names(flower_clean) <- c("species", "Height")
>
> iris_clean$Height <- as.numeric(iris_clean$Height)
> flower_clean$Height <- as.numeric(flower_clean$Height)
>
> combined_data <- rbind(iris_clean, flower_clean)
>
> print("~~~ Combined Data Summary ~~~")
[1] "~~~ Combined Data Summary ~~"
> print(paste("Iris rows:", nrow(iris_clean)))
[1] "Iris rows: 150"
> print(paste("Flower rows:", nrow(flower_clean)))
[1] "Flower rows: 10000"
> print(paste("Total rows (Expected):", nrow(iris_clean) + nrow(flower_clean)))
[1] "Total rows (Expected): 10150"
> print(paste("Total rows (Actual):", nrow(combined_data)))
[1] "Total rows (Actual): 10150"
>

```

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The screenshot shows the RStudio interface. The top menu bar includes File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, Help, and a Project dropdown set to (None). The source editor on the left contains R code for combined data analysis, including printing summaries, previewing data, and displaying head and tail rows of the combined dataset. The right panel, titled 'Environment', lists various R objects such as df_clean, df_logic, df_text, final_d, flower_d, flower_l, iqoo_da, iris, iris_cl, long_df, mediate, my.boxp, my_df, qualcom, retail, retail_l, sd1.df, sd15.df, sd5.df, split_l, tidy_da, and wide_df, each with its size and type information. At the bottom, the taskbar shows the Windows Start button, a search bar, and pinned icons for various applications like File Explorer, Mail, and Google Chrome. The system tray indicates the language is English (ENG) and the date and time are 11:03 AM on 08-12-2025.

```
> print("~~~ Combined Data Summary ~~~")
[1] "~~~ Combined Data Summary ~~~"
> print(paste("Iris rows:", nrow(iris_clean)))
[1] "Iris rows: 150"
> print(paste("Flower rows:", nrow(flower_clean)))
[1] "Flower rows: 10000"
> print(paste("Total rows (Expected):", nrow(iris_clean) + nrow(flower_clean)))
[1] "Total rows (Expected): 10150"
> print(paste("Total rows (Actual):", nrow(combined_data)))
[1] "Total rows (Actual): 10150"
>
> print("~~~ Preview of Combined Data (Top and Bottom) ~~~")
[1] "~~~ Preview of Combined Data (Top and Bottom) ~~~"
> print(head(combined_data))
  Species Height
1   setosa    5.1
2   setosa    4.9
3   setosa    4.7
4   setosa    4.6
5   setosa    5.0
6   setosa    5.4
> print(tail(combined_data))
  Species Height
10145     rose   87.69
10146  hibiscus 109.52
10147 shoeblack plant 145.23
10148  hibiscus 126.69
10149 shoeblack plant   77.62
10150     rose   88.11
>
>
> |
```

