

Sheth L.U.J. & Sir M.V. College

12. Combining datasets vertically (concatenation) using rbind() (R).
Write code to combine datasets vertically (concatenation) using rbind() in R studio.

The screenshot shows the RStudio interface with the following details:

- File Menu:** File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, Help.
- Project:** Project: (None)
- Code Editor:** Displays the following R code:

```
combi_data <- rbind(iris, df)
```
- Data View:** Shows the "iris" dataset with columns Sepal.Length, Sepal.Width, Petal.Length, Petal.Width, and Species. The data consists of 150 entries for the setosa species.
- Environment View:** Shows various objects in the global environment, including "combi_data", "df", "df_c1", "df_sm", "flowe", "Food", "iris", "iris_c1", "long", "traff", and "wide".
- Console View:** Shows the command "combi_data <- rbind(iris, df)".
- System Tray:** Shows the Windows taskbar with icons for search, file explorer, and various applications like Google Chrome, Microsoft Edge, and R.
- Bottom Status Bar:** Shows the date and time as 11:38:52 AM 08-12-2025.

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Showing 1 to 27 of 200 entries, 11 total columns

Console

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```

1 # VERTICAL CONCATENATION USING rbind()
2 # Datasets: iris (built-in) + flower_dataset.csv (custom)
3 #
4 library(dplyr)
5 #
6 # -----
7 # 1. LOAD DATA
8 # -----
9 data(iris) # built-in dataset
10 #
11 flower_df <- read.csv("c:\\users\\itlab\\downloads\\flower_dataset - flower_dataset.csv")
12 cat("--- original column Names ---\n")
13 print(names(iris))
14 print(names(flower_df))
15 #
16 # -----
17 # 2. PREPARE DATA (make columns same before rbind)
18 # Common column structure - Species + Height
19 #
20 # 2.1 Iris - Use Sepal.Length as example height
21 iris_clean <- iris %>%
22   select(Species, Sepal.Length) %>%
23   rename(Height = Sepal.Length)
24 #
25 # 2.2 Flower dataset - pick matching columns
26 flower_clean <- flower_df %>%
27   select(species, height) %>%
28   rename(Species = species,
29         Height = height_cm)
30 #
31 # Ensure numeric height
32 iris_clean$height <- as.numeric(iris_clean$height)
33 flower_clean$height <- as.numeric(flower_clean$height)
34 #
35 # -----
36 # 3. VERTICAL CONCATENATION (Stack rows)
37 #
38 df <- rbind(iris_clean, flower_clean)
39 #
40 # -----
41 # -----
42 # -----
3855 [Untitled] : R Script

```

Console

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The screenshot shows the RStudio interface with the following details:

- File menu:** File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, Help.
- Project:** Project: (None)
- Source Editor:** Displays R code for concatenating datasets. The code reads 'iris.csv' and 'flower_dataset.csv', prepares the data by making column names the same, and then concatenates them vertically using `rbind`. It also prints the combined data summary and preview.
- Environment:** Shows variables: `combi_` (10150 obs. of ...), `df` (200 obs. of ...), `df_cl_` (200 obs. of ...), `df_sm_` (200 obs. of ...), `flowe_` (10000 obs. o...), `fFlowe_` (10000 obs. o...), `Food_` (200 obs. of ...), `iris` (150 obs. of ...), `iris_` (150 obs. of ...), `long_` (600 obs. of ...), `traff_` (200 obs. of ...), and `wide_` (200 obs. of ...).
- Console:** Shows the R command `?` followed by the R version `R 4.5.2`.
- System Tray:** Shows battery level (0.24%), signal strength, and system status.
- Bottom Bar:** Shows the date and time (11.37.53 AM 08-12-2025) and language (ENG IN).

The screenshot shows the RStudio interface with the following details:

- File menu:** File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, Help.
- Project:** Project: (None)
- Console:** Shows the R command `?` followed by the R version `R 4.5.2`.
- Data:** Shows variables: `combi_` (10150 obs. o...), `df` (200 obs. of ...), `df_cl_` (200 obs. of ...), `df_sm_` (200 obs. of ...), `flowe_` (10000 obs. o...), `fFlowe_` (10000 obs. o...), `Food_` (200 obs. of ...), `iris` (150 obs. of ...), `iris_` (150 obs. of ...), `long_` (600 obs. of ...), `traff_` (200 obs. of ...), and `wide_` (200 obs. of ...).
- System Tray:** Shows battery level (0.44%), signal strength, and system status.
- Bottom Bar:** Shows the date and time (11.39.54 AM 08-12-2025) and language (ENG IN).

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RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Go to file/function Addins
Source
Console Background Jobs
R 4.5.2 ~/
> # Ensure numeric height
> iris_clean\$height <- as.numeric(iris_clean\$height)
> flower_clean\$height <- as.numeric(flower_clean\$height)
> #-----
> # 3. VERTICAL CONCATENATION (Stack rows)
> #-----
> combined_data <- rbind(iris_clean, flower_clean)
>
> cat("\n--- Combined Data Summary ---\n")
--- Combined Data Summary ---
> cat("Iris rows: ", nrow(iris_clean), "\n")
Iris rows: 150
> cat("Flower rows: ", nrow(flower_clean), "\n")
Flower rows: 10000
> cat("Total Expected:", nrow(iris_clean) + nrow(flower_clean), "\n")
Total Expected: 10150
> cat("Total Actual: ", nrow(combined_data), "\n\n")
Total Actual: 10150
>
> cat("---- Preview of Combined Data ----\n")
---- Preview of Combined Data ---
> 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
> View(combined_data)
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RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Go to file/function Addins
Source
Console Background Jobs
R 4.5.2 ~/
>
> cat("\n--- combined Data summary ---\n")
--- combined Data summary ---
> cat("Iris rows: ", nrow(iris_clean), "\n")
Iris rows: 150
> cat("Flower rows: ", nrow(flower_clean), "\n")
Flower rows: 10000
> cat("Total Expected:", nrow(iris_clean) + nrow(flower_clean), "\n")
Total Expected: 10150
> cat("Total Actual: ", nrow(combined_data), "\n\n")
Total Actual: 10150
>
> cat("---- Preview of Combined Data ----\n")
---- Preview of Combined Data ---
> print(head(combined_data))
Species Height
1 setosa 5.1
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> 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
> View(combined_data)
> View(df)
> View(wide_df)
> View(traffic_pivot)
> View(long_df)
> View(iris_clean)
> View(Food_Delivery_Route_Efficiency_dataset)
> View(iris_clean)
> View(iris)
> |
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