

MVLU COLLEGE

PRACTICAL NO.6

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

The image shows two side-by-side sessions in RStudio. Both sessions have the same environment and file structure, with the Global Environment pane showing objects like cricket_data, data_feb, data_jan, data_new_hires, Fastest.Fifties, merged_data, Retail.Product, and team_lookup. The left session (line 1) contains code for merging datasets, while the right session (line 22) contains code for appending datasets.

```

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Project: (None) ×
Environment History Connections Tutorial
R | Global Environment
cricket_data 106 obs. of 9 variables
data_feb 3 obs. of 3 variables
data_jan 3 obs. of 3 variables
data_new_hires 2 obs. of 3 variables
Fastest.Fifties 107 obs. of 9 variables
merged_data 106 obs. of 10 variables
Retail.Product 4362 obs. of 5 variables
team_lookup 8 obs. of 2 variables
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SM PRACTICAL - II.txt 1.2 KB Aug 22, 2025, 3:01 PM

```

Session 1 (Left):

```

1 # -----
2 # PRACT 6. Merge and Append (Adapted for Cricket data)
3 # -----
4
5 library(dplyr) # Loads the necessary library for data manipulation
6
7 # -----
8 # 1. SETUP: Load Your Actual Data
9 #
10 #
11 # *** UPDATED TO USE YOUR FILE PATH ***
12 cricket_data <- read.csv("D:/Haris126/fastest Fifties - 2018.csv")
13
14 # use head() on the loaded data to show the first few rows were successfully read
15 print("--- Main Data Loaded (First 6 Rows) ---")
16 print(head(cricket_data))
17
18 # Prepare subsets for the APPEND example:
19 # Batch 1: First 5 records
20 batch_1 <- head(cricket_data, 5)
21 # Batch 2: Next 5 records (Rows 6 through 10)
22 # Note: Ensure your CSV has at least 10 rows for this to work perfectly.
23 batch_2 <- cricket_data[6:10, ]
24
25 # Dataset 3: Team Names Table (To practice Merging)
26 # This table includes common team abbreviations from your data
27 team_lookup <- data.frame(
28   Against = c("CSK", "MI", "KKR", "DC", "RCB", "SRH", "PBKS", "RR"),
29   Full_Team_Name = c("Chennai Super Kings", "Mumbai Indians",
30   "Kolkata Knight Riders", "Delhi Capitals",
31   "Royal Challengers Bangalore", "Sunrisers Hyderabad",
32   "Punjab Kings", "Rajasthan Royals")
33 )
34
35 # -----
36
37 # 2. APPEND (Stacking Rows)
38 # -----
39 # Goal: Combine two different sections of the main dataset vertically.
40 final_player_list <- bind_rows(batch_1, batch_2)
41
42 print("--- Appended Data (Rows 1-10 combined) ---")
43 print(final_player_list)
44
45 # -----
46 # 3. MERGE (Joining columns)
47 # -----
48 # Goal: Add a new column (Full_Team_Name) to the main dataset by matching
49 # the common column 'Against' (the team abbreviation).
50 merged_data <- merge(cricket_data, team_lookup, by = "Against", all.x = TRUE)
51
52 print("--- Merged Data (Full Team Names Added) ---")
53 # using head() to keep the output clean, showing the new 'Full_Team_Name' column
54 print(head(merged_data))
55
56
55:1 (Untitled) :

```

Session 2 (Right):

```

1 # -----
2 # Note: Ensure your CSV has at least 10 rows for this to work perfectly.
3 batch_2 <- cricket_data[6:10, ]
4
5 # Dataset 3: Team Names Table (To practice Merging)
6 # This table includes common team abbreviations from your data
7 team_lookup <- data.frame(
8   Against = c("CSK", "MI", "KKR", "DC", "RCB", "SRH", "PBKS", "RR"),
9   Full_Team_Name = c("Chennai Super Kings", "Mumbai Indians",
10   "Kolkata Knight Riders", "Delhi Capitals",
11   "Royal Challengers Bangalore", "Sunrisers Hyderabad",
12   "Punjab Kings", "Rajasthan Royals")
13 )
14
15 # -----
16 # 2. APPEND (Stacking Rows)
17 # -----
18 # Goal: Combine two different sections of the main dataset vertically.
19 final_player_list <- bind_rows(batch_1, batch_2)
20
21 print("--- Appended Data (Rows 1-10 combined) ---")
22 print(final_player_list)
23
24 # -----
25 # 3. MERGE (Joining columns)
26 # -----
27 # Goal: Add a new column (Full_Team_Name) to the main dataset by matching
28 # the common column 'Against' (the team abbreviation).
29 merged_data <- merge(cricket_data, team_lookup, by = "Against", all.x = TRUE)
30
31 print("--- Merged Data (Full Team Names Added) ---")
32 # using head() to keep the output clean, showing the new 'Full_Team_Name' column
33 print(head(merged_data))
34
35
35:1 (Untitled) :

```

OUTPUT:-

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SYCS

MVLU COLLEGE

PRACTICAL NO.6

RStudio

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```

> 
> print(head(cricket_data))
   POS      Player Runs BF X4s X6s Against          Venue Match.Date
1  1 KL Rahul  51 14  6  4     DC  IS Bindra Stadium 08 April 2018
2  2 Ishan Kishan 62 17  5  6     KKR  Eden Gardens 09 May 2018
3  3 Sunil Narine 50 17  4  5     RCB  Eden Gardens 08 April 2018
4  4 Jos Buttler  67 18  4  7     DC Arun Jaitley Stadium 02 May 2018
5  5 Sam Billings 56 21  2  5     KKR Chidambaram 10 April 2018
6  6 KL Rahul  66 22  2  7     KKR Holkar Cricket Stadium 12 May 2018
> # Dataset 3: Team Names Table (To practice Merging)
> # This table includes common team abbreviations from your data
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+   Against = c("CSK", "MI", "KKR", "DC", "RCB", "SRH", "PBKS", "RR"),
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+                      "Kolkata Knight Riders", "Delhi Capitals",
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+                      "Punjab Kings", "Rajasthan Royals")
+ )
> print("--- Appended Data (Rows 1-10 combined) ---")
[1] "--- Appended Data (Rows 1-10 combined) ---"
> print(final_player_list)

Error in print(final_player_list) : object 'final_player_list' not found

> # -----
> # 3. MERGE (Joining columns)
> # -----
> # Goal: Add a new column (Full_Team_Name) to the main dataset by matching
> # the common column 'Against' (the team abbreviation).
> merged_data <- merge(cricket_data, team_lookup, by = "Against", all.x = TRUE)
> print("--- Merged Data (Full Team Names Added) ---")
[1] "--- Merged Data (Full Team Names Added) ---"
> # using head() to keep the output clean, showing the new 'Full_Team_Name' column
> print(head(merged_data))
  Against POS      Player Runs BF X4s X6s          Venue Match.Date Full_Team_Name
1    CSK  12 AB de Villiers  68 23  2  8 M. Chinnaswamy Stadium 25 April 2018 Chennai Super Kings
2    CSK  20 Jos Buttler  95 26 11  2 Sawai Mansingh Stadium 11 May 2018 Chennai Super Kings
3    CSK  33 Vijay Shankar 54 28  1  5  Mahashtra Cricket Association's International Stadium 30 April 2018 Chennai Super Kings
4    CSK  85 Kane Williamson 51 37  5  2  Mahashtra Cricket Association's International Stadium 13 May 2018 Chennai Super Kings
5    CSK  54 Shubman Gill  57 32  6  2  Eden Gardens 03 May 2018 Chennai Super Kings
6    CSK  89 Shikhar Dhawan 79 38 10  3  Mahashtra Cricket Association's International Stadium 13 May 2018 Chennai Super Kings
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```

Environment History Connections Tutorial Project: (None)

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+ )
> print("--- Appended Data (Rows 1-10 combined) ---")
[1] "--- Appended Data (Rows 1-10 combined) ---"
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Error in print(final_player_list) : object 'final_player_list' not found

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