

MVLU COLLEGE

R PRACTICAL 11

Aim:Reshaping data using pivot_longer()/pivot_wider() (R).

Output:

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RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Source
Console Terminal Background Jobs
R - R 4.1.2 . ~/...
> library(dplyr)
> library(tidyr)
> Fastest_Fifties <- read.csv(file_path, header = TRUE)
> # Fix column names because your CSV uses V1, V2 ... but actual names are inside row 1
> colnames(Fastest_Fifties) <- c("Pos", "Player", "Runs", "BF", "X4s", "X6s",
+ "Against", "Venue", "MatchDate")
> # Clean data
> ipl_data_clean <- Fastest_Fifties %>%
+   mutate(
+     Runs = as.numeric(Runs),
+     BF = as.numeric(BF),
+     X4s = as.numeric(X4s),
+     X6s = as.numeric(X6s),
+     FiftyID = row_number(),
+     Strike_Rate = (Runs / BF) * 100
+   ) %>%
+   filter(!is.na(BF) & Runs >= 50) %>%
+   select(FiftyID, Player, Runs, BF, Strike_Rate, X4s, X6s, Against, venue)
> print("--- 1. Cleaned Data ---")
[1] "--- 1. Cleaned Data ---"
> print(head(ipl_data_clean))
#> # A tibble: 6 x 9
#>   FiftyID Player  Runs   BF Strike_Rate Against venue      X4s   X6s
#>   <dbl> <chr> <dbl> <dbl>        <dbl> <chr> <chr> <dbl> <dbl>
1       1 KL Rahul  51.  14.    364.2857   6   DC  IS Bindra Stadium  6   4
2       2 Ishan Kishan 62.  17.    364.7059   5   KKR Eden Gardens  5
3       3 Sunil Narine 50.  17.    294.1176   4   RCB Eden Gardens  4
4       4 Jos Buttler 67.  18.    372.2222   4   DC Arun Jaitley Stadium  4   7
5       5 Sam Billings 56.  21.    266.6667   5   KKR Chidambaram  2   5
6       6 KL Rahul   66.  22.    300.0000   2   KKR Holkar Cricket Stadium  2   7
> long_boundaries <- ipl_data_clean %>%
+   pivot_longer(
+     cols = c(X4s, X6s),
+     names_to = "BoundaryType",
+     values_to = "Count"
+   )
> print(" --- Long Boundary Data --- ")

```

```

RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Source
Console Terminal Background Jobs
R - R 4.1.2 . ~/...
+   names_to = "BoundaryType",
+   values_to = "Count"
+ )
> print(" --- 2. Long Boundary Data --- ")
[1] "--- 2. Long Boundary Data ---"
> print(head(long_boundaries))
#> # A tibble: 6 x 9
#>   FiftyID Player  Runs   BF Strike_Rate Against venue      X4s   X6s
#>   <dbl> <chr> <dbl> <dbl>        <dbl> <chr> <chr> <dbl> <dbl>
1       1 KL Rahul  51.  14.    364. DC  IS Bindra Stadium X4s  6
2       1 KL Rahul  51.  14.    364. DC  IS Bindra Stadium X6s  4
3       2 Ishan Kishan 62.  17.    365. KKR Eden Gardens X4s  5
4       2 Ishan Kishan 62.  17.    365. KKR Eden Gardens X6s  6
5       3 Sunil Narine 50.  17.    294. RCB Eden Gardens X4s  4
6       3 Sunil Narine 50.  17.    294. RCB Eden Gardens X6s  5
> wide_boundaries <- long_boundaries %>%
+   pivot_wider(
+     names_from = "BoundaryType",
+     values_from = Count
+   )
> print(" --- 3. wide Boundaries Reconstructed --- ")
[1] "--- 3. wide Boundaries Reconstructed ---"
> print(head(wide_boundaries))
#> # A tibble: 6 x 9
#>   FiftyID Player  Runs   BF Strike_Rate Against venue      X4s   X6s
#>   <dbl> <chr> <dbl> <dbl>        <dbl> <chr> <chr> <dbl> <dbl>
1       1 KL Rahul  51.  14.    364. DC  IS Bindra Stadium  6   4
2       2 Ishan Kishan 62.  17.    365. KKR Eden Gardens  5   6
3       3 Sunil Narine 50.  17.    294. RCB Eden Gardens  4   5
4       4 Jos Buttler 67.  18.    372. DC Arun Jaitley Stadium  4   7
5       5 Sam Billings 56.  21.    267. KKR Chidambaram  2   5
6       6 KL Rahul   66.  22.    300. KKR Holkar Cricket Stadium  2   7
> opponent_avg_sr <- ipl_data_clean %>%
+   group_by(Player, Against) %>%
+   summarise()

```

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The screenshot shows the RStudio interface with the following details:

- File Edit Code View Plots Session Build Debug Profile Tools Help**
- Addins** tab is selected.
- Console** tab is active, displaying R code and its output.
- Background Jobs** tab is visible.
- Environment** tab shows a list of objects in the global environment:

 - opponent_pivot (41 obs. of 9 variables)
 - range_cols (106 obs. of 9 variables)
 - Retail.Product (4362 obs. of 5 variables)
 - runs_by_month (1 obs. of 3 variables)
 - runs_by_oppone... (8 obs. of 5 variables)
 - selected_cols (106 obs. of 9 variables)
 - starts_with_P (106 obs. of 9 variables)
 - team_league (9 obs. of 2 variables)

- Files** tab shows the file structure:

 - Home folder contains:
 - fuel_sales.csv
 - GIS Database
 - ISExpress
 - My Music
 - My Pictures
 - My Videos
 - My Web Sites
 - R
 - SM PRACTICAL - II 20.txt (1.2 KB, Aug 22, 2025, 3:02 PM)
 - SM PRACTICAL - II.txt (1.2 KB, Aug 22, 2025, 3:01 PM)
 - total_bills.csv
 - Virtual Machines
 - Visual Studio 2022
 - WindowsPowerShell

- Plots**, **Packages**, **Help**, **Viewer**, and **Presentation** tabs are also present.
- System tray** at the bottom right shows weather (27°C, Sunny), battery level (11:03), and system status (ENG IN).