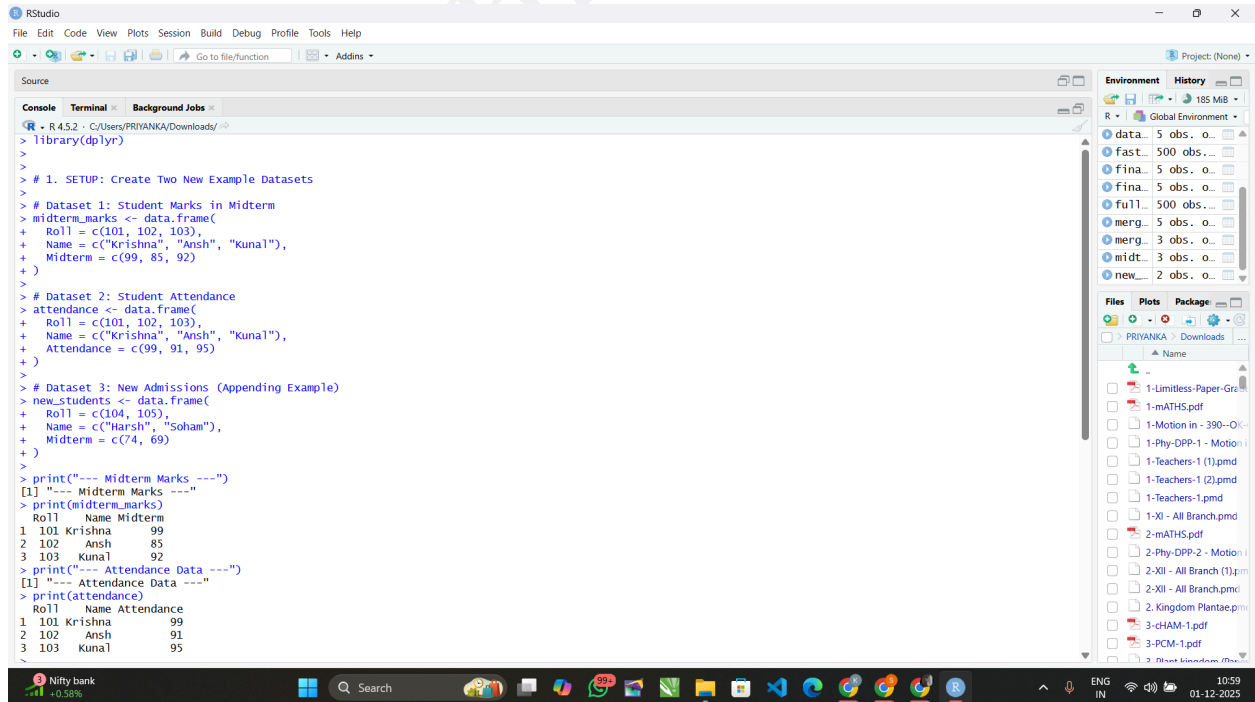


SHETH L.U.J AND SIR M.V. COLLEGE
SUBJECT NAME: DATA ANALYSIS WITH SAS/SPSS/R

Module 1 Practical 6

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

OUTPUT:



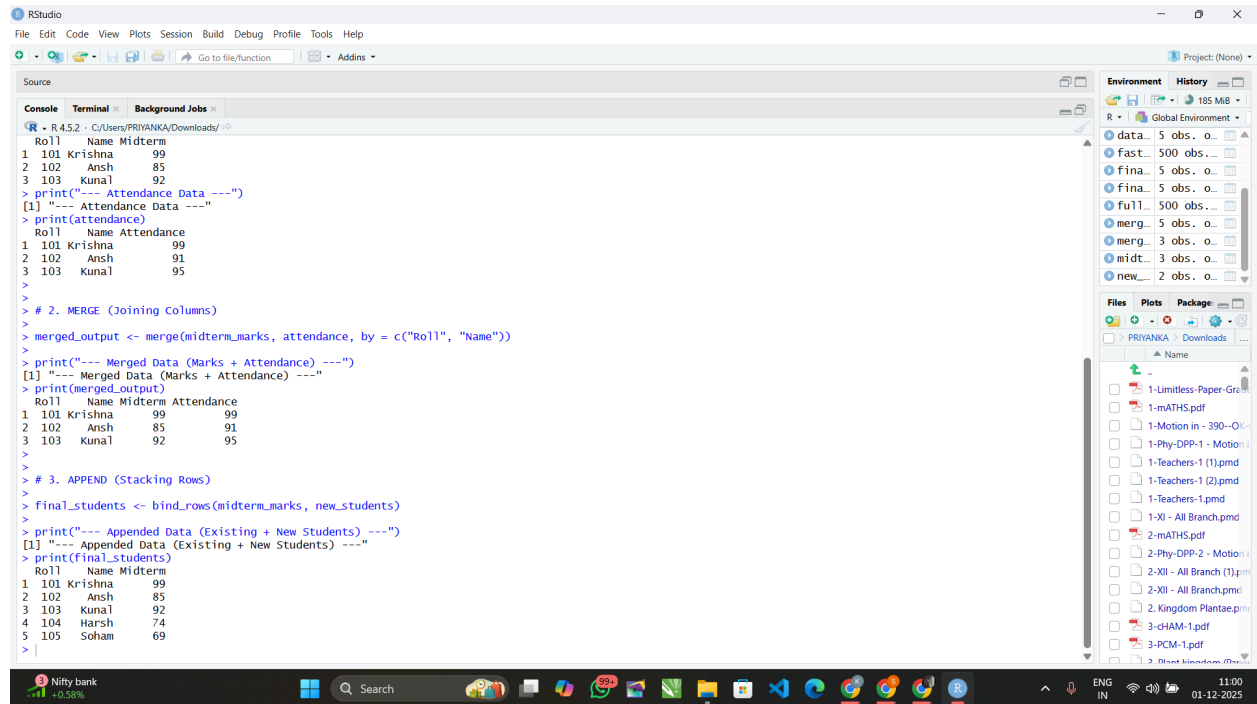
```
R - R 4.5.2 - C:/Users/PRIVANKA/Downloads/
File Edit Code View Plots Session Build Debug Profile Tools Help
Go to file/function Addins
Source
Console Terminal Background Jobs
> library(dplyr)
>
> # 1. SETUP: Create Two New Example Datasets
>
> # Dataset 1: Student Marks in Midterm
> midterm_marks <- data.frame(
+   Roll = c(101, 102, 103),
+   Name = c("Krishna", "Ansh", "Kunal"),
+   Midterm = c(99, 85, 92)
+ )
>
> # Dataset 2: Student Attendance
> attendance <- data.frame(
+   Roll = c(101, 102, 103),
+   Name = c("Krishna", "Ansh", "Kunal"),
+   Attendance = c(99, 91, 95)
+ )
>
> # Dataset 3: New Admissions (Appending Example)
> new_students <- data.frame(
+   Roll = c(104, 105),
+   Name = c("Harsh", "Sohan"),
+   Midterm = c(74, 69)
+ )
>
> print("--- Midterm Marks ---")
[1] "--- Midterm Marks ---"
> print(midterm_marks)
  Roll Name Midterm
1  101 Krishna    99
2  102   Ansh    85
3  103   Kunal    92
> print("--- Attendance Data ---")
[1] "--- Attendance Data ---"
> print(attendance)
  Roll Name Attendance
1  101 Krishna      99
2  102   Ansh      91
3  103   Kunal      95
```

The screenshot shows the RStudio interface with the following components:

- Source:** The R script editor showing the code for creating and printing datasets.
- Console:** The output window showing the execution of the code, including the printed data frames.
- Environment:** The Environment pane on the right showing the objects created in the workspace: data, Fast, fina, Fin, full, merg, midt, and new.
- Files:** The Files pane on the right showing the file explorer.
- Plots:** The Plots pane on the right showing the plot viewer.
- Package:** The Package pane on the right showing the installed and available packages.

SHETH L.U.J AND SIR M.V. COLLEGE

SUBJECT NAME: DATA ANALYSIS WITH SAS/SPSS/R



The screenshot shows the RStudio interface with the following components:

- Source Editor:** Contains R code for data manipulation.
- Console:** Displays the output of the R code execution.
- Environment:** Shows the objects created in the R session.
- Files:** Lists files in the current directory.

R Code:

```
R 4.5.2 - C:/Users/PRIVANKA/Downloads/ >
# 1. READ DATA
roll1 <- read.csv("roll1.csv")
midterm_marks <- read.csv("midterm_marks.csv")
attendance <- read.csv("attendance.csv")

> print("---- Attendance Data ----")
[1] "---- Attendance Data ----"
> print(attendance)
  roll1 Name Attendance
1 101 Krishna      99
2 102 Ansh       85
3 103 Kunal      92
>
> # 2. MERGE (Joining Columns)
> merged_output <- merge(midterm_marks, attendance, by = c("roll1", "Name"))
>
> print("---- Merged Data (Marks + Attendance) ----")
[1] "---- Merged Data (Marks + Attendance) ----"
> print(merged_output)
  roll1 Name Midterm Attendance
1 101 Krishna      99         99
2 102 Ansh       85         91
3 103 Kunal      92         95
>
> # 3. APPEND (Stacking Rows)
> final_students <- bind_rows(midterm_marks, new_students)
>
> print("---- Appended Data (Existing + New Students) ----")
[1] "---- Appended Data (Existing + New Students) ----"
> print(final_students)
  roll1 Name Midterm
1 101 Krishna      99
2 102 Ansh       85
3 103 Kunal      92
4 104 Harsh      74
5 105 Soham      69
>
```

Console Output:

```
R 4.5.2 - C:/Users/PRIVANKA/Downloads/ >
# 1. READ DATA
roll1 <- read.csv("roll1.csv")
midterm_marks <- read.csv("midterm_marks.csv")
attendance <- read.csv("attendance.csv")

> print("---- Attendance Data ----")
[1] "---- Attendance Data ----"
> print(attendance)
  roll1 Name Attendance
1 101 Krishna      99
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[1] "---- Merged Data (Marks + Attendance) ----"
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> print("---- Appended Data (Existing + New Students) ----")
[1] "---- Appended Data (Existing + New Students) ----"
> print(final_students)
  roll1 Name Midterm
1 101 Krishna      99
2 102 Ansh       85
3 103 Kunal      92
4 104 Harsh      74
5 105 Soham      69
>
```

Environment:

| Object | Class | Attributes |
|--------|------------|---------------|
| data | data.frame | 5 obs. o... |
| fast | data.frame | 500 obs. o... |
| fin | data.frame | 5 obs. o... |
| fin | data.frame | 5 obs. o... |
| full | data.frame | 500 obs. o... |
| merg | data.frame | 5 obs. o... |
| merg | data.frame | 3 obs. o... |
| mid | data.frame | 3 obs. o... |
| new | data.frame | 2 obs. o... |

Files:

- 1-Limitless-Paper-Gr...
- 1-mATHS.pdf
- 1-Motion in - 390-O...
- 1-Phy-DPP-1 - Motion...
- 1-Teachers-1 (1).pmd
- 1-Teachers-1 (2).pmd
- 1-Teachers-1.pmd
- 1-XI - All Branch.pmd
- 2-mATHS.pdf
- 2-Phy-DPP-2 - Motion...
- 2-XII - All Branch (1).pmd
- 2-XII - All Branch.pmd
- 2-Kingdom Plantae.pmd
- 3-CHAM-1.pdf
- 3-PCM-1.pdf
- Blank document (New...