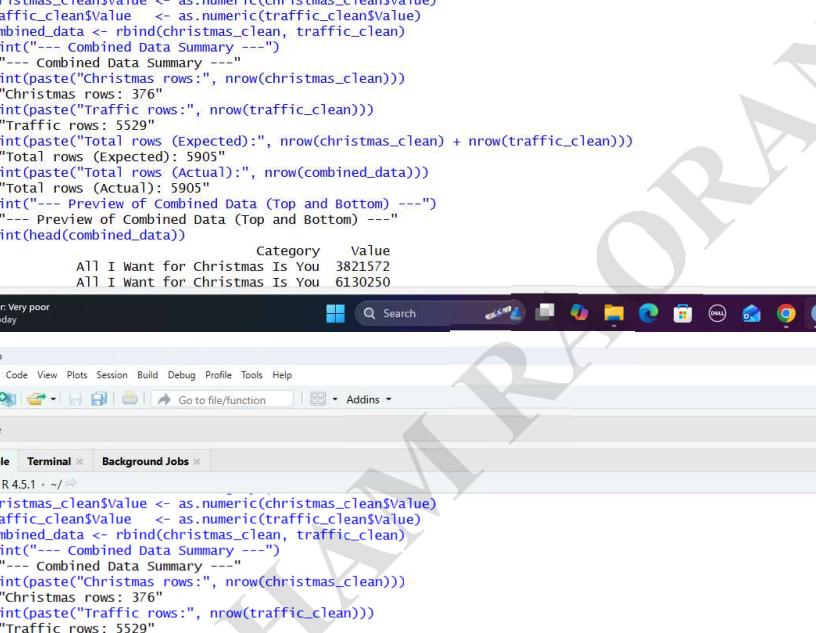


SHETH L.U.J & SIR M.V COLLEGE OF SCIENCE

SUBJECT : Data Analysis with SAS / SPSS /R

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

OUTPUT



The screenshot shows two instances of RStudio running on a Windows operating system. Both instances have the same session history and file structure visible in the sidebar.

Session History:

```

> R4.5.1 - ~/r
> christmas_df <- read.csv("christmas.csv", na.strings = c("", "NA"))
> traffic_df <- read.csv("local_authority_traffic.csv", na.strings = c("", "NA"))
> print("--- Data Structure Before Transformation ---")
[1] "--- Data Structure Before Transformation ---"
> print(names(christmas_df))
[1] "date"      "track"     "artist"    "streams"   "day_of_week" "week_of_year"
> print(names(traffic_df))
[1] "local_authority_id" "local_authority_name" "year"           "link_length_km"
[5] "link_length_miles"   "cars_and_taxis"       "all_motor_vehicles"
> christmas_clean <- christmas_df[, c("track", "streams")]
> names(christmas_clean) <- c("Category", "Value")
> traffic_clean <- traffic_df[, c("local_authority_name", "link_length_km")]
> names(traffic_clean) <- c("Category", "Value")
> christmas_clean$value <- as.numeric(christmas_clean$value)
> traffic_clean$value <- as.numeric(traffic_clean$value)
> combined_data <- rbind(christmas_clean, traffic_clean)
> print("--- Combined Data Summary ---")
[1] "--- Combined Data Summary ---"
> print(paste("Christmas rows:", nrow(christmas_clean)))
[1] "Christmas rows: 376"
> print(paste("Traffic rows:", nrow(traffic_clean)))
[1] "Traffic rows: 5529"
> print(paste("Total rows (Expected):", nrow(christmas_clean) + nrow(traffic_clean)))
[1] "Total rows (Expected): 5905"
> print(paste("Total rows (Actual):", nrow(combined_data)))
[1] "Total rows (Actual): 5905"
> print("--- Preview of Combined Data (Top and Bottom) ---")
[1] "--- Preview of Combined Data (Top and Bottom) ---"
> print(head(combined_data))
      Category      Value
1 All I Want for Christmas Is You 3821572
2 All I Want for Christmas Is You 6130250

```

Session History (Second Instance):

```

> R4.5.1 - ~/r
> christmas_clean$value <- as.numeric(christmas_clean$value)
> traffic_clean$value <- as.numeric(traffic_clean$value)
> combined_data <- rbind(christmas_clean, traffic_clean)
> print("--- Combined Data Summary ---")
[1] "--- Combined Data Summary ---"
> print(paste("Christmas rows:", nrow(christmas_clean)))
[1] "Christmas rows: 376"
> print(paste("Traffic rows:", nrow(traffic_clean)))
[1] "Traffic rows: 5529"
> print(paste("Total rows (Expected):", nrow(christmas_clean) + nrow(traffic_clean)))
[1] "Total rows (Expected): 5905"
> print(paste("Total rows (Actual):", nrow(combined_data)))
[1] "Total rows (Actual): 5905"
> print("--- Preview of Combined Data (Top and Bottom) ---")
[1] "--- Preview of Combined Data (Top and Bottom) ---"
> print(head(combined_data))
      Category      Value
1 All I Want for Christmas Is You 3821572
2 All I Want for Christmas Is You 6130250
3 Last Christmas 4040197
4 All I Want for Christmas Is You 11641888
5 It's Beginning to Look a Lot Like Christmas 4577042
6 Last Christmas 7133652
> print(tail(combined_data))
      Category      Value
5900 York 826.544
5901 Stockport 958.451
5902 Swansea 1139.553
5903 Lewisham 439.146
5904 Camden 278.194
5905 Kingston upon Hull, City of 713.660
>

```

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SUBJECT : Data Analysis with SAS / SPSS /R

The image displays three separate screenshots of the RStudio interface, each showing a different dataset:

- Screenshot 1:** Shows a table titled "Category" with 21 rows of data. The columns are "Category" and "Value". The data includes various Christmas songs like "All I Want for Christmas Is You", "Last Christmas", etc., with their respective stream counts.
- Screenshot 2:** Shows a table titled "track" with 21 rows of data. The columns are "date", "track", "artist", "streams", "day_of_week", and "week_of_year". It lists tracks from November 16, 2017, to December 14, 2017, including artists like Mariah Carey, Wham!, Michael Bublé, etc.
- Screenshot 3:** Shows a table titled "combined_data" with 5905 rows of data. The columns are "date", "track", "artist", "streams", "day_of_week", and "week_of_year". This table combines the data from the first two screens.

The RStudio interface includes a top menu bar, a file browser, and a data viewer pane on the right side. The bottom of each screenshot shows a Windows taskbar with various application icons.

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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).
- Data View:** A data frame titled "S108-R-PROGRAM PRAC12.R" containing 21 rows and 7 columns. The columns are: local_authority_id, local_authority_name, year, link_length_km, link_length_miles, cars_and_taxis, and all_motor_vehicles. The data includes entries for various UK local authorities like Aberdeenshire, Lambeth, Newcastle upon Tyne, etc.
- Environment View:** Shows the global environment with objects like "christmasma...", "christma...", "combined...", "traffic...", and "traffic...".
- Files View:** Shows files in the current directory, including ".RData", ".Rhistory", "bi.pbia", "Custom Office Templates", "GIS DataBase", "IISExpress", "My Web Sites", "NetBeansProjects", "Power BI Desktop", "Virtual Machines", "Visual Studio 2022", "local_authority_traffic.csv", and "christmas.csv".
- Console View:** Shows the command "Console" at the top.
- System Taskbar:** Shows icons for Watchlist, Ideas, Search, and various system applications like File Explorer, Edge, and Google Chrome.
- System Status:** Shows the date and time as 08-12-2025 and 11:10.