

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

Module 2 Practical 7-9

Aim: Performing one-way ANOVA using `aov()` (R).

OUTPUT:

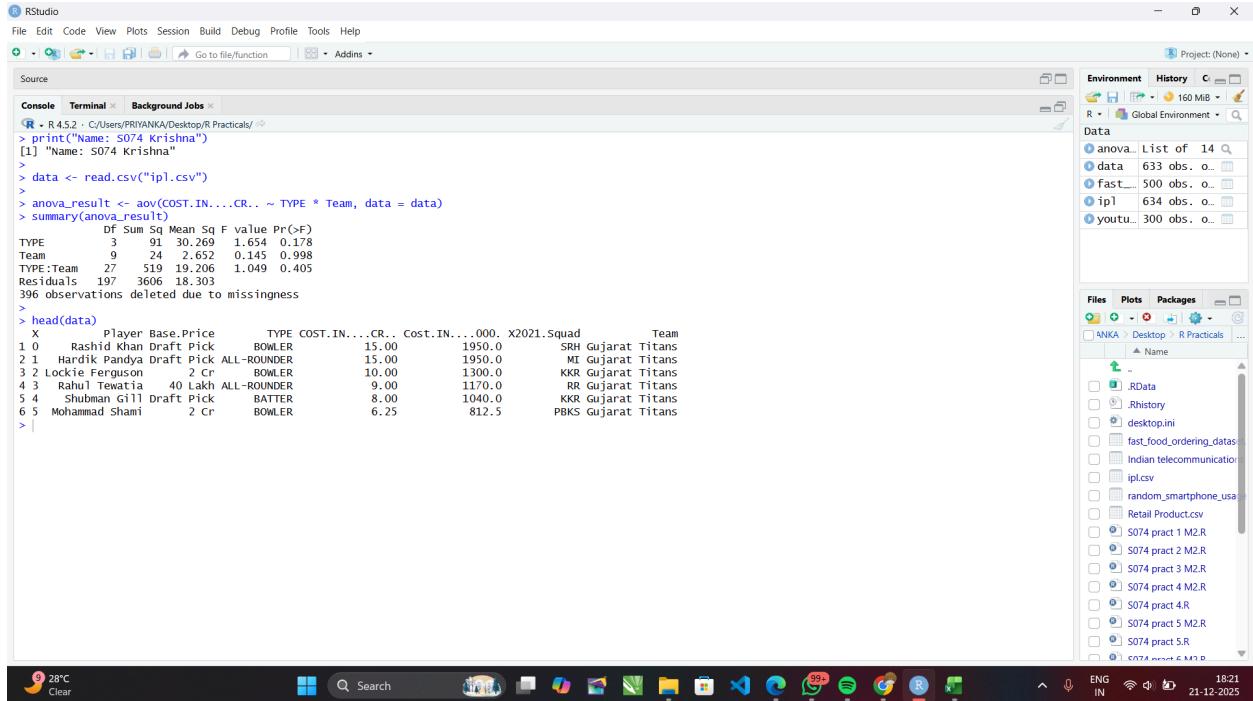
The screenshot shows the RStudio interface with the following details:

- File Menu:** File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, Help.
- Console Tab:** Shows R code and its output. The code reads a CSV file named "fast_food_ordering_dataset.csv" and performs an ANOVA analysis on the relationship between delivery_time_minutes and cuisine_type.
- Data View:** Displays the first few rows of the dataset.
- Environment Tab:** Shows the global environment with objects like anova, data, fast, ipl, and youtube.
- Files Tab:** Shows the project structure with files like .RData, .Rhistory, desktop.ini, and various CSV files.
- Bottom Bar:** Includes icons for search, file operations, and system status.

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Aim: Performing two-way ANOVA using aov() (R).

OUTPUT:



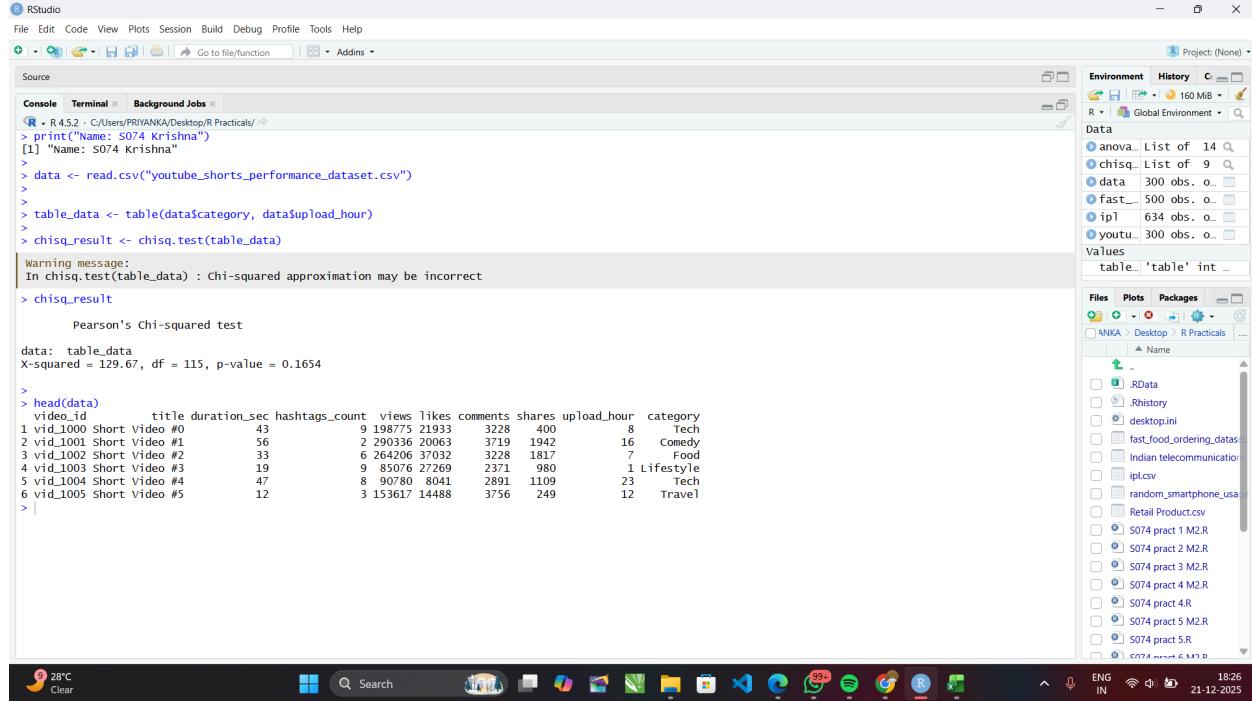
The screenshot shows the RStudio interface with the following details:

- Console:** Displays the R session code and its output. The code includes printing a name, reading a CSV file named "ipl.csv", performing an ANOVA with factors "TYPE" and "Team", and summarizing the results. It also shows the first few rows of the "data" data frame.
- Data View:** Shows the "data" data frame with columns: X, Player, Base.Price, TYPE, COST.IN..., CR., Cost.IN..., 000, x2021.Squad, and Team. The data includes rows for players like Rashid Khan, Hardik Pandya, Lockie Ferguson, etc., across various teams.
- Environment View:** Lists objects in the global environment: anova_, data, fast_, ip1, and youtu_.
- Files View:** Shows the project structure under "ANKA > Desktop > R Practicals".
- Plots View:** Shows a scatter plot of Cost vs Squad.
- Packages View:** Shows available packages: RData, .History, desktop.ini, fast_food_ordering_data, Indian telecommunication, ipl.csv, random_smartphone_usa, Retail Product.csv, S074 pract 1 M2.R, S074 pract 2 M2.R, S074 pract 3 M2.R, S074 pract 4 M2.R, S074 pract 4.R, S074 pract 5 M2.R, S074 pract 5.R, and S074 pract 5.M2.R.

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Aim: Conducting Chi-square tests using chisq.test() (R).

OUTPUT:



The screenshot shows the RStudio interface with the R console tab active. The code in the console is as follows:

```
R - R 4.5.2 · C:/Users/PRIYANKA/Desktop/R Practicals/ > print("Name: S074 Krishna")
[1] "Name: S074 Krishna"
>
> data <- read.csv("youtube_shorts_performance_dataset.csv")
>
> table_data <- table(data$category, data$upload_hour)
>
> chisq_result <- chisq.test(table_data)

Warning message:
In chisq.test(table_data) : Chi-squared approximation may be incorrect

> chisq_result
Pearson's Chi-squared test

data: table_data
X-squared = 129.67, df = 115, p-value = 0.1654

> head(data)
  video_id      title duration_sec hashtags_count  views likes comments shares upload_hour category
1 vid_1000 Short Video #0        43         9 198775 21933    3228   400       8     Tech
2 vid_1001 Short Video #1        56         2 290336 20063    3719  1942      16 Comedy
3 vid_1002 Short Video #2        33         6 264206 37032    3228  1817       7 Food
4 vid_1003 Short Video #3        19         9 85076 27269    2371   980       1 Lifestyle
5 vid_1004 Short Video #4        47         8 90780 8041    2891 1109      23 Tech
6 vid_1005 Short Video #5       12         3 153617 14488    3756   249      12 Travel
```

The RStudio interface includes the Environment, History, and Data panes. The Data pane shows various objects like anova_, chisq_, data, fast_, ip1, and youtu_. The Files, Plots, and Packages panes are also visible.