

**MVLU COLLEGE**  
**Data analysis with SAS/SSPR/R**  
**PRACTICAL NO.15**

**Aim:**15. Generating basic summaries using str() or summary() (R).

**INPUT:**

```
flipkart_df <- read.csv("D:/S119/DATA ANAN/flipkart.csv", na.strings = c("", "NA"))
```

```
flipkart_df$Rating <- as.numeric(flipkart_df$Rating)
```

```
flipkart_df$sactprice1 <- as.numeric(flipkart_df$sactprice1)
```

```
print("--- Data Loaded ---")
```

```
print("--- OUTPUT OF str() ---")
```

```
str(flipkart_df)
```

```
print("--- OUTPUT OF summary() [Before Factor Conversion] ---")
```

```
summary(flipkart_df)
```

```
flipkart_df$maincateg <- as.factor(flipkart_df$maincateg)
```

```
print("--- OUTPUT OF summary() [After Factor Conversion] ---")
```

```
summary(flipkart_df)
```

```
avg_rating <- mean(flipkart_df$Rating, na.rm = TRUE)
```

```
max_price <- max(flipkart_df$sactprice1, na.rm = TRUE)
```

```
print(paste("Average Rating:", avg_rating))
```

```
print(paste("Highest Price:", max_price))
```

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## OUTPUT:

The screenshot displays the RStudio interface. The console on the left shows the execution of R code to load a CSV file, convert it to a data frame, and print summary statistics. The environment pane on the right shows the loaded data frame 'Flipkart' with its dimensions and variable types. The package pane at the bottom lists installed and available CRAN packages.

```
R 4.52 - ~/R
File Edit Code View Plots Session Build Debug Profile Tools Help
Go to file/function Addins

Source
Console Terminal Background Jobs

> replacement has 0 rows, data has 100000
> Flipkart <- read.csv("D:/S119/DATA ANAN/Flipkart.csv", header=FALSE)
> view(Flipkart)
> Flipkart_df <- read.csv("D:/S119/DATA ANAN/Flipkart.csv", na.strings = c("", "NA"))
> Flipkart_df$Rating <- as.numeric(Flipkart_df$Rating)
> Flipkart_df$actprice1 <- as.numeric(Flipkart_df$actprice1)
> print("---- Data Loaded ----")
[1] "---- Data Loaded ----"
> print("---- OUTPUT OF str() ----")
[1] "---- OUTPUT OF str() ----"
> str(Flipkart_df)
'data.frame': 5244 obs. of 14 variables:
 $ id      : int  2242 20532 10648 20677 12593 11159 10680 6433 2794 11579 ...
 $ title   : chr  "Casuals For Men (blue)" "Women Black Flats Sandal" "Women Gold Wedges Sandal" "Me
n's Height Increasing High Heel Formal Party Wear Slip-on Boots Slip on For Men (tan)" ...
 $ Rating  : num  3.8 3.9 3.9 3.9 3.9 3.9 3.9 4.2 3.9 3.8 ...
 $ maincateg : chr  "Men" "women" "women" "Men" ...
 $ platform : chr  "Flipkart" "Flipkart" "Flipkart" "Flipkart" ...
 $ actprice1 : num  999 499 999 2999 999 ...
 $ noreviews1 : int  27928 3015 449 290 2423 541 824 166 1816 3066 ...
 $ noreviews1 : int  3543 404 52 40 326 72 105 24 218 392 ...
 $ star_5f : int  14238 1458 229 141 1265 281 386 94 899 1304 ...
 $ star_4f : int  4295 657 70 51 414 104 199 39 360 803 ...
 $ star_3f : int  3457 397 71 49 293 69 106 12 239 462 ...
 $ star_2f : int  1962 182 33 17 143 17 61 6 113 189 ...
 $ star_1f : int  3976 321 46 32 308 70 72 15 208 308 ...
 $ fulfilled1 : int  1 1 1 0 0 1 1 0 1 ...
> print("---- OUTPUT OF summary() [Before Factor Conversion] ----")
[1] "---- OUTPUT OF summary() [Before Factor Conversion] ----"
> summary(Flipkart_df)
      id      title      Rating      maincateg
Min.   : 0   Length:5244   Min.   :0.000   Length:5244
1st Qu.: 5287  Class :character 1st Qu.:3.900   Class :character
Median :10562  Mode  :character  Median :4.000   Mode  :character
Mean   :10507
3rd Qu.:115637
      actprice1
Min.   :0.000
1st Qu.:0.000
Median :0.000
Mean   :0.000
3rd Qu.:0.000
```

Environment History Connections Tutorial  
R - Global Environment  
Import Dataset 259 MiB  
starts\_with\_h 918 obs. of 1 variable  
unique\_customers 200 obs. of 20 variables  
wide\_df 100000 obs. of 4 variables  
Values  
avg\_chol 198.799564270153  
avg\_rating 4.01108906962904  
current\_time 2025-12-08 11:11:18 IST  
group1 num [1:10] 26 25 10 34 30 23 28 29 25 27  
group2 num [1:10] 22 24 19 31 27 21 27 24 26  
max\_price 15999

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Package Description Source Version  
User Library  
askpass Password Entry Utilities for R, Git, CRAN 1.2.1  
backports Reimplementations of CRAN 1.5.0  
base64enc Tools for base64 encoding CRAN 0.1-3  
bit Classes and Methods for Fast CRAN 4.6.0  
bit64 A 64-bit Class for 64-bit CRAN 4.6.0-1  
blob A Simple Class for Representing CRAN 1.2.4  
broom Convert Statistical Objects to CRAN 1.10.10  
BSDA Basic Statistics and Data Analysis CRAN 1.2.2  
bslib Custom Bootstrap Themes CRAN 0.9.0  
cachem Cache Objects with Automatic Persistence CRAN 1.1.0  
callr Call R from R CRAN 3.7.6  
cellranger Translate R Ranges to Cell Ranges CRAN 1.1.0  
cli Helpers for Developing Command-line CRAN 3.6.5  
clipr Read and Write from the System Clipboard CRAN 0.8.0  
conflicted An Alternative Conflict Resolution Strategy CRAN 1.2.0  
crosstalk A C++11 Interface for R's C++ Interf... CRAN 0.5.2  
crayon Colored Terminal Output CRAN 1.5.3  
crayon A Modern and Flexible Web Client CRAN 7.0.0

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The image displays two screenshots of the RStudio interface, showing the process of loading and analyzing the 'flipkart' dataset.

**Top Screenshot:** The console shows the execution of `summary(flipkart_df)`, which displays summary statistics for various variables including `id`, `title`, `Rating`, `maincateg`, `platform`, `actprice`, `norating`, `noreviews`, `star_5f`, `star_4f`, `star_3f`, and `star_2f`. The Environment pane on the right shows the loaded dataset with 100,000 observations and 20 variables.

**Bottom Screenshot:** The console shows the execution of `summary(flipkart_df)` after factor conversion, followed by `flipkart_df$maincateg <- as.factor(flipkart_df$maincateg)`. The Environment pane on the right shows the updated dataset with 100,000 observations and 20 variables.

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