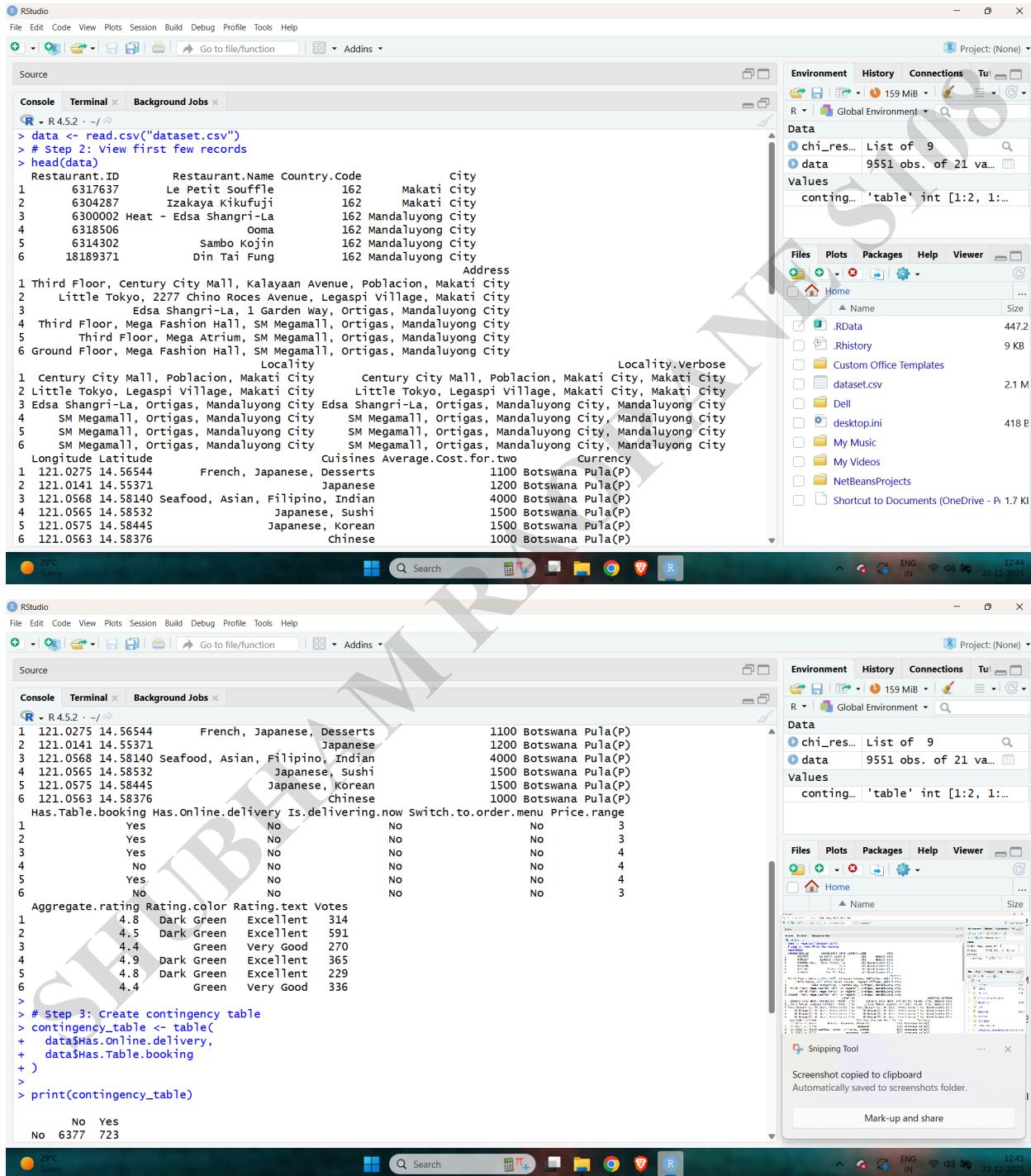


SHETH L.U.J & SIR M.V COLLEGE OF SCIENCE

SUBJECT : R-PROGRAMMING

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

OUTPUT



The screenshot shows two instances of the RStudio interface running on a Windows desktop. Both instances show the same R session output, which includes the following steps:

```

> data <- read.csv("dataset.csv")
> # Step 2: View first few records
> head(data)
  Restaurant.ID Restaurant.Name Country.Code City
1       6317637      Le Petit Souffle     162 Makati City
2       6304287        Izakaya Kikufuji     162 Makati City
3      6300002 Heat - Edsa Shangri-La     162 Mandaluyong City
4       6318506            Ooma     162 Mandaluyong City
5       6314302      Sambo Kojin     162 Mandaluyong City
6     18189371      Din Tai Fung     162 Mandaluyong City

  Address
1 Third Floor, Century City Mall, Kalayaan Avenue, Poblacion, Makati City
2 Little Tokyo, 2277 Chino Roces Avenue, Legaspi Village, Makati City
3 Edsa Shangri-La, 1 Garden Way, Ortigas, Mandaluyong City
4 Third Floor, Mega Fashion Hall, SM Megamall, Ortigas, Mandaluyong City
5 Third Floor, Mega Atrium, SM Megamall, Ortigas, Mandaluyong City
6 Ground Floor, Mega Fashion Hall, SM Megamall, Ortigas, Mandaluyong City

  Locality
1 Century City Mall, Poblacion, Makati City   Century City Mall, Poblacion, Makati City, Makati City
2 Little Tokyo, Legaspi Village, Makati City   Little Tokyo, Legaspi Village, Makati City, Makati City
3 Edsa Shangri-La, Ortigas, Mandaluyong City Edsa Shangri-La, Ortigas, Mandaluyong City, Mandaluyong City
4 SM Megamall, Ortigas, Mandaluyong City   SM Megamall, Ortigas, Mandaluyong City, Mandaluyong City
5 SM Megamall, Ortigas, Mandaluyong City   SM Megamall, Ortigas, Mandaluyong City, Mandaluyong City
6 SM Megamall, Ortigas, Mandaluyong City   SM Megamall, Ortigas, Mandaluyong City, Mandaluyong City

  Longitude Latitude Cuisines Average.Cost.for.two Currency
1 121.0275 14.56544 French, Japanese, Desserts 1100 Botswana Pula(P)
2 121.0141 14.55371 Japanese 1200 Botswana Pula(P)
3 121.0568 14.58140 Seafood, Asian, Filipino, Indian 4000 Botswana Pula(P)
4 121.0565 14.58532 Japanese, Sushi 1500 Botswana Pula(P)
5 121.0575 14.58445 Japanese, Korean 1500 Botswana Pula(P)
6 121.0563 14.58376 Chinese 1000 Botswana Pula(P)

> # Step 3: Create contingency table
> contingency_table <- table(
+   data$Has.Online.delivery,
+   data$Has.Table.booking
+ )
> print(contingency_table)

```

The contingency table output is:

	No	Yes
No	6377	723

The RStudio interface includes a top menu bar, a source editor, a console, a terminal, and a background jobs tab. The right side of the interface features a file browser, a plots viewer, and a packages viewer. The status bar at the bottom shows system information like temperature, battery level, and network connection.

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

SUBJECT : R-PROGRAMMING

Screenshot 1 (Top): RStudio Environment

The RStudio interface shows the following code in the Console:

```

R > R.4.5.2 - ~/Desktop
+ data<-read.csv("dataset.csv")
+ data$Has.Table.booking
+ )
> print(contingency_table)

      No  Yes
No  6377 723
Yes 2016 435

> # Step 4: Apply chi-square Test
> chi_result <- chisq.test(contingency_table)
>
> print(chi_result)

Pearson's Chi-squared test with Yates' continuity correction

data: contingency_table
X-squared = 97.153, df = 1, p-value < 2.2e-16

>
> if (chi_result$p.value < 0.05) {
+   cat("Result: Reject H0\n")
+   cat("Conclusion: Has Online Delivery and Has Table Booking are significantly associated.\n")
+ } else {
+   cat("Result: Fail to Reject H0\n")
+   cat("Conclusion: Has online Delivery and Has Table Booking are independent.\n")
+ }
Result: Reject H0
Conclusion: Has Online Delivery and Has Table Booking are significantly associated.
>

```

The Global Environment pane shows:

- chi_res... List of 9
- data 9551 obs. of 21 va...
- conting... 'table' int [1:2, 1:...

The Files pane shows:

- .RData 447.2
- .Rhistory 9 KB
- Custom Office Templates
- dataset.csv 2.1 M
- Dell
- desktop.ini 418 B
- My Music
- My Videos
- NetBeansProjects
- Shortcut to Documents (OneDrive - Pi 1.7 Ki)

System tray at the bottom: 29°C sunny, ENG IN, 12:45, 22-12-2025.

Screenshot 2 (Bottom): RStudio Environment

The RStudio interface shows the following code in the Console:

```

S108-M-2 PRAC9 R-PROGRAM.R x chi_result x data x
+ j
Result: Reject H0
Conclusion: Has Online Delivery and Has Table Booking are significantly associated.
> View(chi_result)
>

```

The Global Environment pane shows:

- chi_res... List of 9
- data 9551 obs. of 21 va...
- conting... 'table' int [1:2, 1:...

The Files pane shows:

- .RData 447.2
- .Rhistory 9 KB
- Custom Office Templates
- dataset.csv 2.1 M
- Dell
- desktop.ini 418 B
- My Music
- My Videos
- NetBeansProjects
- Shortcut to Documents (OneDrive - Pi 1.7 Ki)

System tray at the bottom: 29°C Sunny, ENG IN, 12:45, 22-12-2025.

