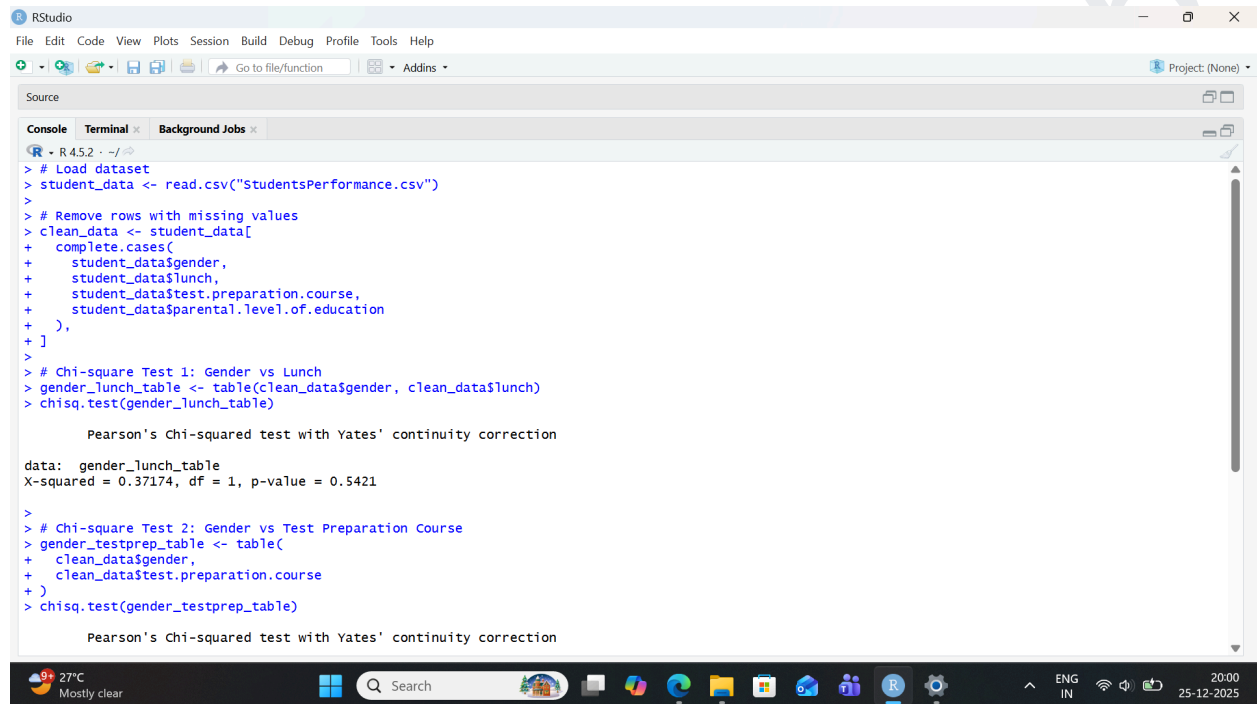


## Practical No 9 Module II

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

**Output :**



```
RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Go to file/function Addins Project: (None)
Source
Console Terminal Background Jobs
R - R 4.5.2 - ~/
> # Load dataset
> student_data <- read.csv("StudentsPerformance.csv")
>
> # Remove rows with missing values
> clean_data <- student_data[
+ complete.cases(
+   student_data$gender,
+   student_data$lunch,
+   student_data$test.preparation.course,
+   student_data$parental.level.of.education
+ ),
+ ]
>
> # Chi-square Test 1: Gender vs Lunch
> gender_lunch_table <- table(clean_data$gender, clean_data$lunch)
> chisq.test(gender_lunch_table)

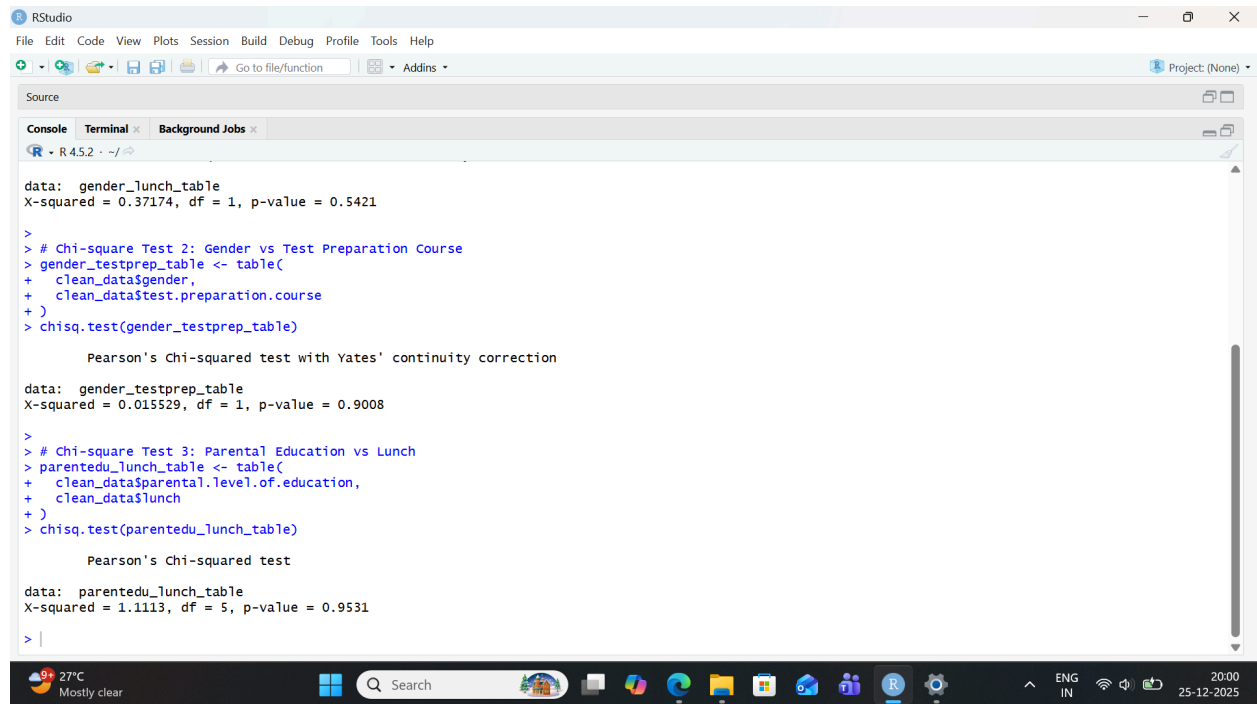
Pearson's Chi-squared test with Yates' continuity correction

data:  gender_lunch_table
X-squared = 0.37174, df = 1, p-value = 0.5421

>
> # Chi-square Test 2: Gender vs Test Preparation Course
> gender_testprep_table <- table(
+   clean_data$gender,
+   clean_data$test.preparation.course
+ )
> chisq.test(gender_testprep_table)

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

**SHETH L.U.J. AND SIR M.V. COLLEGE OF ARTS SCIENCE AND COMMERCE**  
**SUBJECT : R Programming**



The screenshot shows the RStudio interface with the console pane active. The console displays the results of three chi-square tests performed on data from a file named 'clean\_data.csv'. The first test is for 'gender\_lunch\_table', the second for 'gender\_testprep\_table', and the third for 'parentedu\_lunch\_table'. Each test output includes the data name, the chi-squared value, degrees of freedom (df), and the p-value.

```
R - R 4.5.2 - ~/r
data: gender_lunch_table
X-squared = 0.37174, df = 1, p-value = 0.5421

>
> # Chi-square Test 2: Gender vs Test Preparation Course
> gender_testprep_table <- table(
+   clean_data$gender,
+   clean_data$test.preparation.course
+ )
> chisq.test(gender_testprep_table)

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

data: gender_testprep_table
X-squared = 0.015529, df = 1, p-value = 0.9008

>
> # Chi-square Test 3: Parental Education vs Lunch
> parentedu_lunch_table <- table(
+   clean_data$parental.level.of.education,
+   clean_data$lunch
+ )
> chisq.test(parentedu_lunch_table)

Pearson's Chi-squared test

data: parentedu_lunch_table
X-squared = 1.1113, df = 5, p-value = 0.9531

> |
```

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