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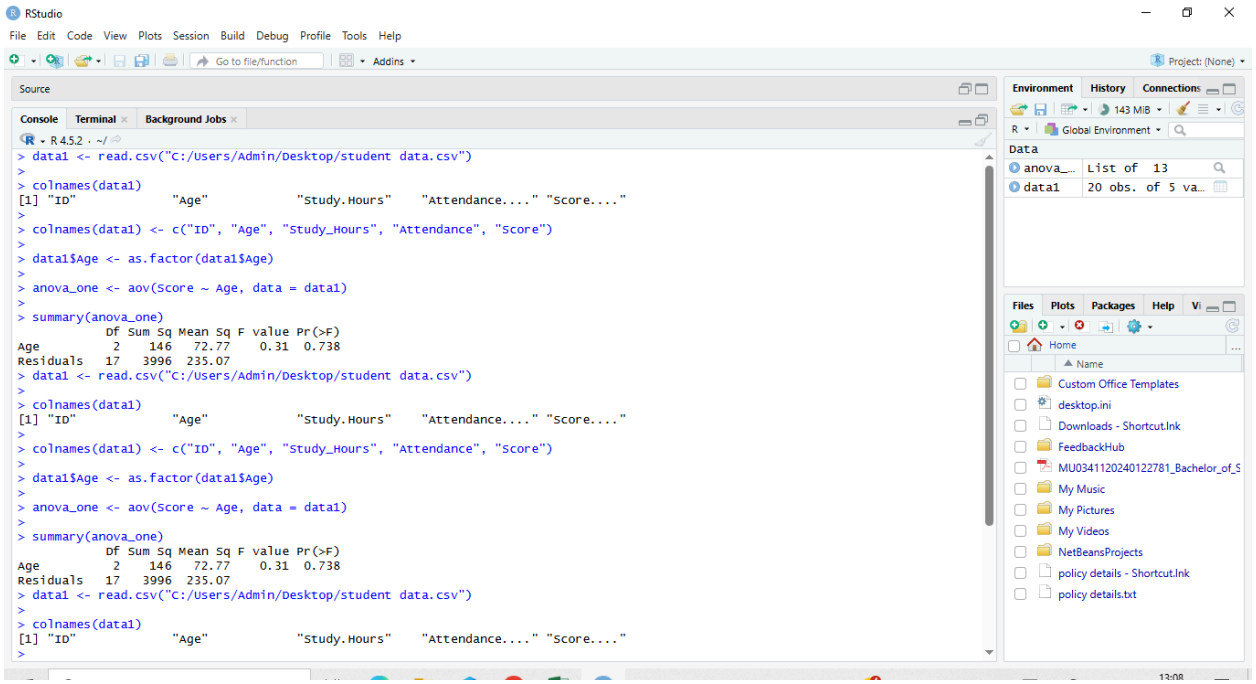
AIM:

7 Performing one-way ANOVA using aov() (R).



```
> data1 <- read.csv("C:/Users/Admin/Desktop/student data.csv")
>
> colnames(data1)
[1] "ID"            "Age"           "Study.Hours"   "Attendance...." "Score...."
>
> colnames(data1) <- c("ID", "Age", "Study_Hours", "Attendance", "Score")
>
> data1$Age <- as.factor(data1$Age)
>
> anova_one <- aov(Score ~ Age, data = data1)
>
> summary(anova_one)
            Df Sum Sq Mean Sq F value Pr(>F)
Age          2    146   72.77    0.31  0.738
Residuals   17   3996  235.07
> data1 <- read.csv("C:/Users/Admin/Desktop/student data.csv")
>
> colnames(data1)
[1] "ID"            "Age"           "Study.Hours"   "Attendance...." "Score...."
>
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Residuals   17   3996  235.07
> data1 <- read.csv("C:/Users/Admin/Desktop/student data.csv")
>
> colnames(data1)
[1] "ID"            "Age"           "Study.Hours"   "Attendance...." "Score...."
>
```
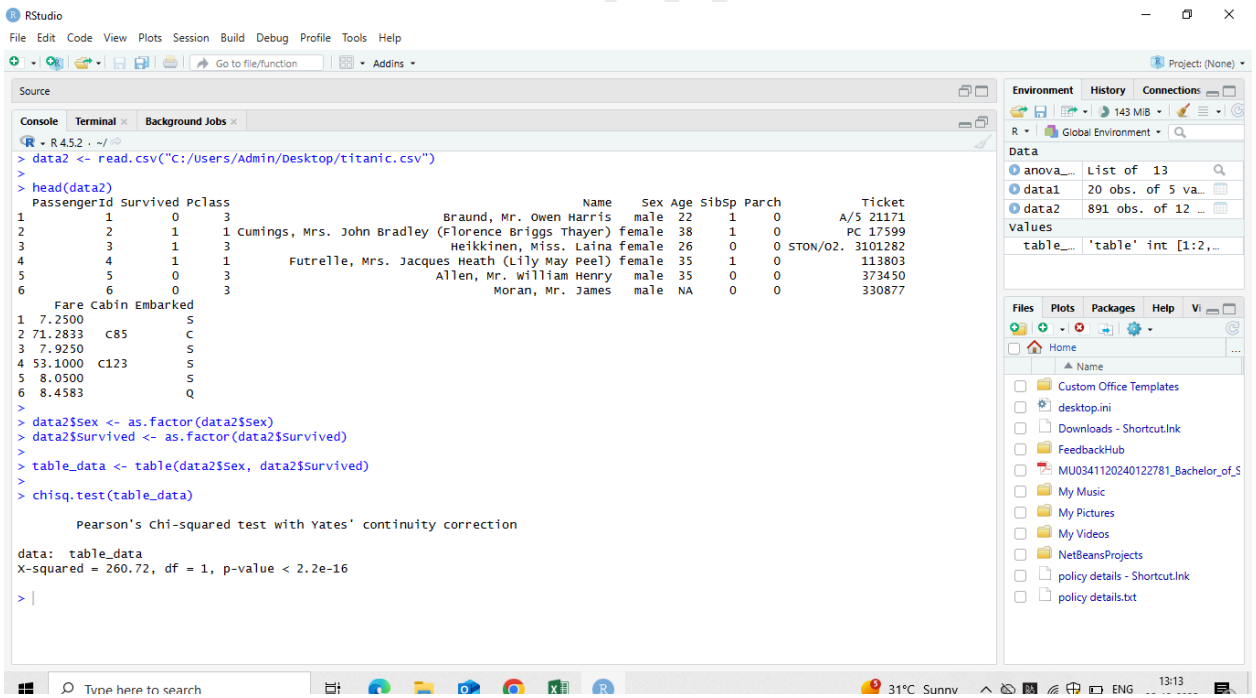

8 Performing two-way ANOVA using aov() (R).



```
> data2 <- read.csv("C:/Users/Admin/Desktop/titanic.csv")
>
> head(data2)
  PassengerId Survived Pclass                                                Name    Sex Age SibSp Parch            Ticket
1           1        0      3                             Braund, Mr. Owen Harris   male  22     1     0         A/5 21171
2           2        1      1 Cumings, Mrs. John Bradley (Florence Briggs Thayer) female  38     1     0          PC 17599
3           3        1      3                              Heikkinen, Miss. Laina female  26     0     0 STON/O2. 3101282
4           4        1      1        Futrelle, Mrs. Jacques Heath (Lily May Peel) female  35     1     0           113803
5           5        0      3                            Allen, Mr. William Henry   male  35     0     0           373450
6           6        0      3                                    Moran, Mr. James   male  NA     0     0           330877
     Fare Cabin Embarked
1  7.2500              S
2 71.2833   C85        C
3  7.9250              S
4 53.1000  C123        S
5  8.0500              S
6  8.4583              Q
>
> data2$Sex <- as.factor(data2$Sex)
> data2$Survived <- as.factor(data2$Survived)
>
> table_data <- table(data2$Sex, data2$Survived)
>
> chisq.test(table_data)

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

data:  table_data
X-squared = 260.72, df = 1, p-value < 2.2e-16

>
```

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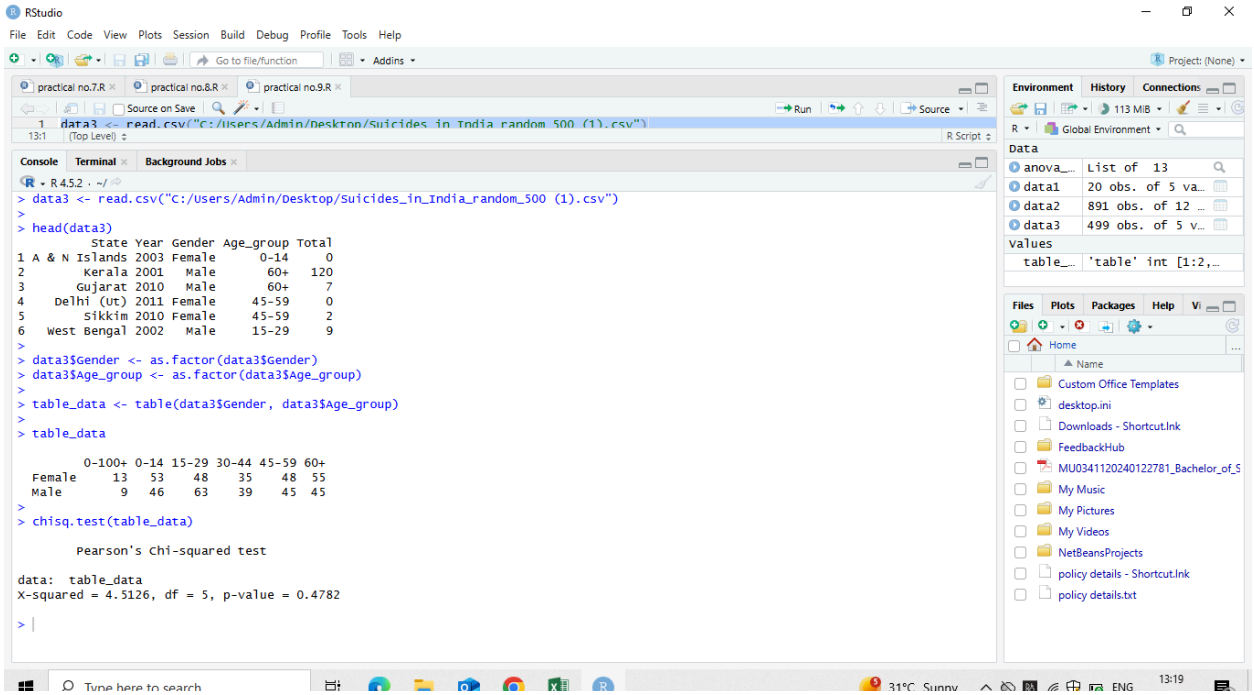
9 Conducting Chi-square tests using chisq.test() (R)



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