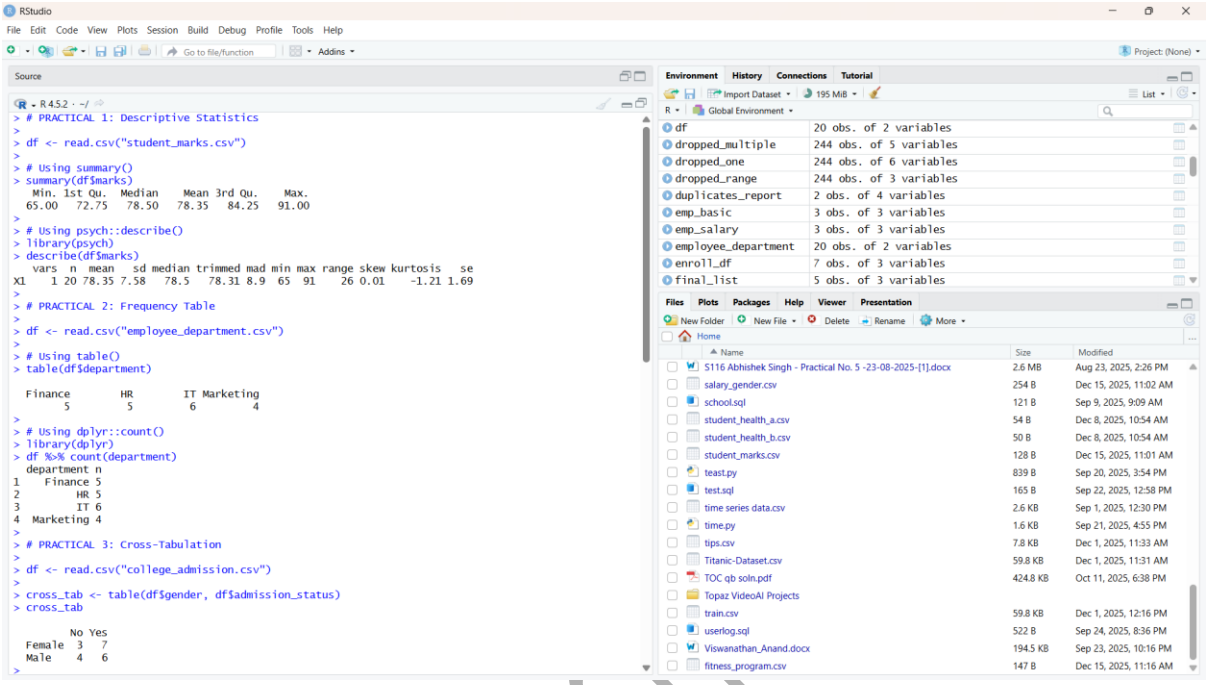
PRACTICAL NO 1 & 2 MODULE2

OUTPUT:



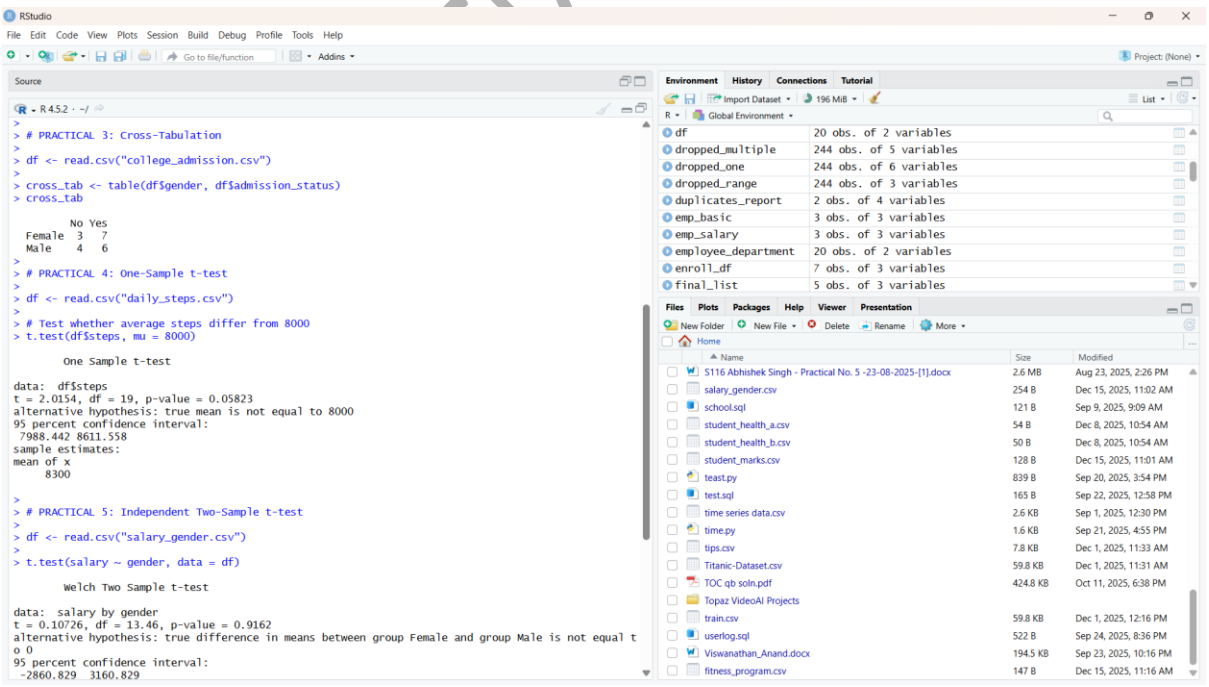
```
> # PRACTICAL 1: Descriptive Statistics
>
> df <- read.csv("student_marks.csv")
>
> # Using summary()
> summary(df$marks)
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  65.00   72.75   78.50   78.35   84.25   91.00
>
> # Using psych::describe()
> library(psych)
> describe(df$marks)
   vars  n  mean   sd median trimmed mad min max range skew kurtosis   se
X1    1 20 78.35 7.58   78.5   78.31 8.9  65  91    26 0.01    -1.21 1.69
>
> # PRACTICAL 2: Frequency Table
>
> df <- read.csv("employee_department.csv")
>
> # Using table()
> table(df$department)

  Finance        HR        IT Marketing
        5         5         6         4
>
> # Using dplyr::count()
> library(dplyr)
> df %>% count(department)
  department n
1    Finance 5
2         HR 5
3         IT 6
4  Marketing 4
>
> # PRACTICAL 3: Cross-Tabulation
>
> df <- read.csv("college_admission.csv")
>
> cross_tab <- table(df$gender, df$admission_status)
> cross_tab

        No Yes
  Female  3   7
  Male    4   6
>
```

PRACTICAL NO 3 &4 MODULE 2

OUTPUT:



```
>
> # PRACTICAL 3: Cross-Tabulation
>
> df <- read.csv("college_admission.csv")
>
> cross_tab <- table(df$gender, df$admission_status)
> cross_tab

        No Yes
  Female  3   7
  Male    4   6
>
> # PRACTICAL 4: One-Sample t-test
>
> df <- read.csv("daily_steps.csv")
>
> # Test whether average steps differ from 8000
> t.test(df$steps, mu = 8000)

        One Sample t-test

data:  df$steps
t = 2.0154, df = 19, p-value = 0.05823
alternative hypothesis: true mean is not equal to 8000
95 percent confidence interval:
 7988.442 8611.558
sample estimates:
mean of x
     8300

>
> # PRACTICAL 5: Independent Two-Sample t-test
>
> df <- read.csv("salary_gender.csv")
>
> t.test(salary ~ gender, data = df)

        Welch Two Sample t-test

data:  salary by gender
t = 0.10726, df = 13.46, p-value = 0.9162
alternative hypothesis: true difference in means between group Female and group Male is not equal t
o 0
95 percent confidence interval:
 -2860.829  3160.829
```

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S112

PRACTICAL NO 5 & 6 MODULE 2

OUTPUT: