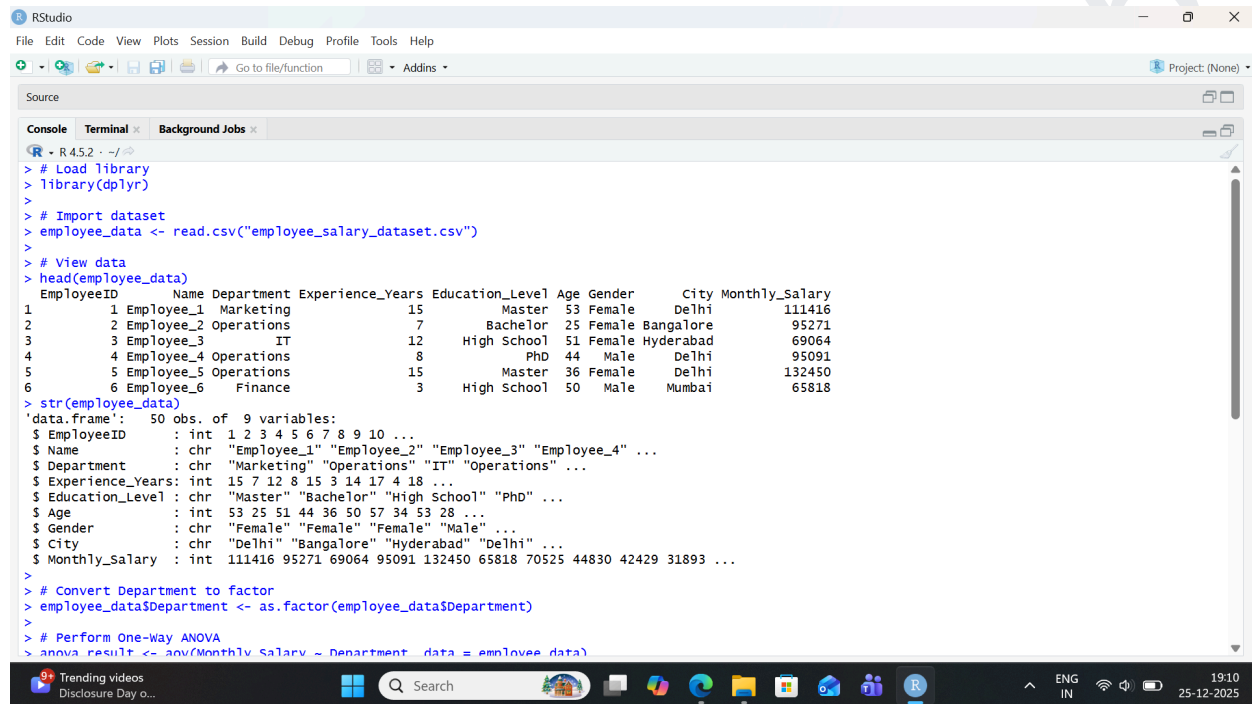# SHETH L.U.J. AND SIR M.V. COLLEGE OF ARTS SCIENCE AND COMMERCE
SUBJECT : R Programming

Practical No 7 Module II

Aim : **7 Performing one-way ANOVA using aov() (R).**
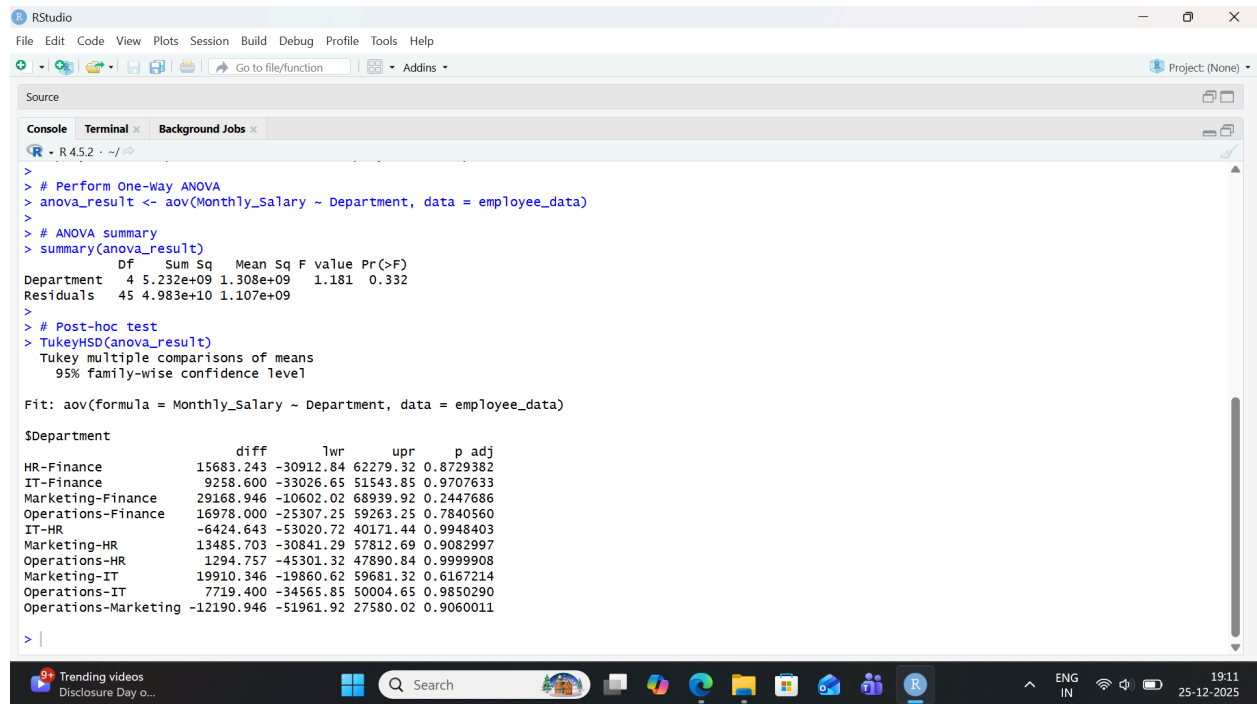
Output :

```
> 
> # Perform One-Way ANOVA
> anova_result <- aov(Monthly_Salary ~ Department, data = employee_data)
> 
> # ANOVA summary
> summary(anova_result)
            Df   Sum Sq   Mean Sq F value Pr(>F)
Department   4 5.232e+09 1.308e+09   1.181  0.332
Residuals   45 4.983e+10 1.107e+09
> 
> # Post-hoc test
> TukeyHSD(anova_result)
  Tukey multiple comparisons of means
    95% family-wise confidence level

Fit: aov(formula = Monthly_Salary ~ Department, data = employee_data)

$Department
                          diff       lwr      upr     p adj
HR-Finance           15683.243 -30912.84 62279.32 0.8729382
IT-Finance            9258.600 -33026.65 51543.85 0.9707633
Marketing-Finance    29168.946 -10602.02 68939.92 0.2447686
Operations-Finance   16978.000 -25307.25 59263.25 0.7840560
IT-HR                -6424.643 -53020.72 40171.44 0.9948403
Marketing-HR         13485.703 -30841.29 57812.69 0.9082997
Operations-HR         1294.757 -45301.32 47890.84 0.9999908
Marketing-IT         19910.346 -19860.62 59681.32 0.6167214
Operations-IT         7719.400 -34565.85 50004.65 0.9850290
Operations-Marketing -12190.946 -51961.92 27580.02 0.9060011

> |
```

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