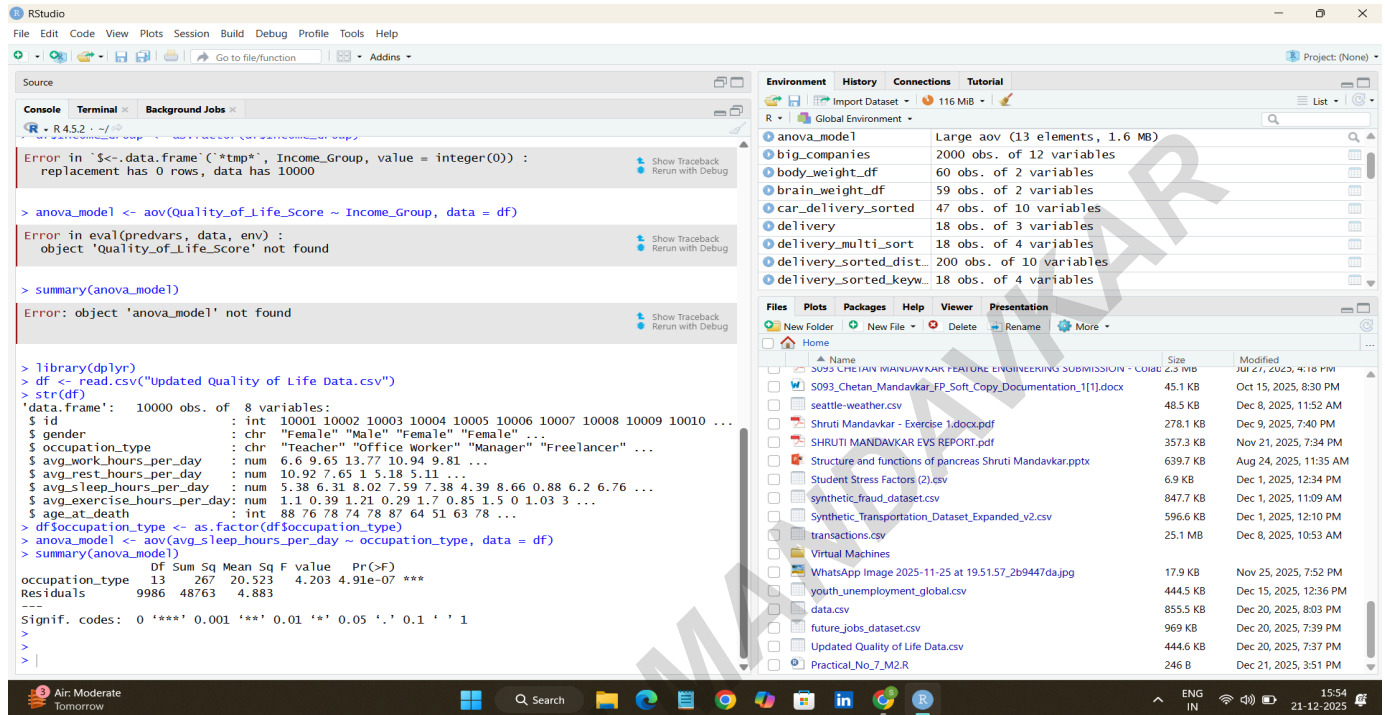


# SHETH L.U.J. AND SIR M.V. COLLEGE

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



The screenshot shows the RStudio interface. The console displays the following R code and its output:

```
> library(dplyr)
> df <- read.csv("Updated Quality of Life Data.csv")
> str(df)
'data.frame': 10000 obs. of 8 variables:
 $ id      : int  10001 10002 10003 10004 10005 10006 10007 10008 10009 10010 ...
 $ gender  : chr   "Female" "Male" "Female" "Female" ...
 $ occupation_type : chr   "Teacher" "Office Worker" "Manager" "Freelancer" ...
 $ avg_work_hours_per_day : num  6.6 9.65 13.77 10.94 9.81 ...
 $ avg_rest_hours_per_day : num  10.92 7.65 1 5.18 5.11 ...
 $ avg_sleep_hours_per_day : num  5.38 6.31 8.02 7.59 7.38 4.39 8.66 0.88 6.2 6.76 ...
 $ avg_exercise_hours_per_day : num  1.1 0.39 1.21 0.29 1.7 0.85 1.5 0 1.03 3 ...
 $ age_at_death : int  88 76 78 74 78 87 64 51 63 78 ...
> df$occupation_type <- as.factor(df$occupation_type)
> anova_model <- aov(avg_sleep_hours_per_day ~ occupation_type, data = df)
> summary(anova_model)
```

The output of the summary function is as follows:

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
occupation_type	13	267	20.523	4.203	4.91e-07 ***
Residuals	9986	48763	4.883		

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

The Environment pane on the right shows the following objects:

- anova\_model: Large aov (13 elements, 1.6 MB)
- big\_companies: 2000 obs. of 12 variables
- body\_weight\_df: 60 obs. of 2 variables
- brain\_weight\_df: 59 obs. of 2 variables
- car\_delivery\_sorted: 47 obs. of 10 variables
- delivery: 18 obs. of 3 variables
- delivery\_multi\_sort: 18 obs. of 4 variables
- delivery\_sorted\_dist: 200 obs. of 10 variables
- delivery\_sorted\_keyw: 18 obs. of 4 variables

The Files pane on the right shows the following files:

- S093 CHETAN MANDAVKAR FEAT ONE ENGINEERING SUBMISSION - CORE: 2.3 MB
- S093\_Chetan\_Mandavkar\_FP\_Soft\_Copy\_Documentation\_1[1].docx: 45.1 KB
- seattle-weather.csv: 48.5 KB
- Shruti Mandavkar - Exercise 1.docx.pdf: 278.1 KB
- SHRUTI MANDAVKAR EYS REPORT.pdf: 357.3 KB
- Structure and functions of pancreas Shruti Mandavkar.pptx: 639.7 KB
- Student Stress Factors (2).csv: 6.9 KB
- synthetic\_fraud\_dataset.csv: 847.7 KB
- Synthetic\_Transportation\_Dataset\_Expanded\_v2.csv: 596.6 KB
- transactions.csv: 25.1 MB
- Virtual Machines
- WhatsApp Image 2025-11-25 at 19:51:57\_2b9447da.jpg: 17.9 KB
- youth\_unemployment\_global.csv: 444.5 KB
- data.csv: 855.5 KB
- future\_jobs\_dataset.csv: 969 KB
- Updated Quality of Life Data.csv: 444.6 KB
- Practical\_No\_7\_M2.R: 246 B

NAME:- CHETAN MANDAVKAR

ROLL NO. S093

SUBJECT:- Data Analysis With SAS / SPSS / R