

A.D.M COLLEGE FOR WOMEN (AUTONOMOUS), NAGAPATTINAM
PG & RESEARCH DEPARTMENT OF MATHEMATICS
VALUE ADDED COURSE (MULTI DISCIPLINARY)
SEMESTER V
R LAB WITH TABULAE
2024 – 2025 BATCH

Unit I

Introduction to R and Tabulae: Setting up R and Tabulae – Basic R syntax and data types – Introduction to Tabulae interface.

Unit II

Data Structures and Manipulation: Vectors, Matrices and data frames – Data cleaning and preprocessing – Data visualization basics.

Unit III

Data Visualization: Tabulae visualization tools – creating interactive visualizations – Best practices for data visualizations.

Unit IV

Statistical Analysis: Hypothesis testing and confidence intervals – Regression analysis.

Unit V

Data Analysis Project: Applying R and Tabulae skills.

Lab Exercises:

1. Operations on vectors
2. Operations on matrices
3. Creating and manipulating data frames.
4. Writing user defined functions for finding matrix addition
5. Writing user defined functions for finding matrix multiplication.
6. Bar charts.
7. Line Graph.
8. Pie charts.
9. Bubble Chart
10. Scatter plots