

# AMRITA VISHWA VIDYAPEETHAM

*Amrita School of Computing*

*Amaravati Campus – 522503*



श्रद्धावान् लभते ज्ञानम्

## 19CSE304 – Foundations Of Data Science

### Lab Manual

*Year: 2024-2025 (Odd Semester)*

Name : \_\_\_\_\_

Reg. No : \_\_\_\_\_

Semester: \_\_\_\_\_





Certified that this is the bonafide record of practical work done by  
Sri/Kum....., with  
Roll number ..... in the 19CSE304 – Foundations of Data  
Science laboratory, of this institution, as prescribed by the Amrita  
Vishwa Vidyapeetham for the ..... Semester B. Tech during  
the year 2024-2025 (Odd Semester).

***Course Instructor***

***Course Mentor/Coordinator***

**Department of Computer Science and Engineering**

**Department of Computer Science and Engineering**

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**List of Experiments**

<b>Experiment Number</b>	<b>Experiment Name</b>	<b>Pg. No</b>	<b>Date</b>	<b>Signature of the Faculty</b>
1	Basic problems - list, dictionary, tuple, set		13.08.24	
2	Codes using NumPy [Basic]		17.08.24	
3	Pandas, Merging and Concatenating Tables (with Creation of Tables)		20.08.24	
4	Handling Missing Values		27.08.24	
5	Pearson Coefficient & PCA		10.09.24	
6	Visualizing Data – 1 (Scatter, Line, Bar graphs)		17.09.24	
7	Visualizing Data – 2 (Histograms, Pie Charts, Heat maps, Box plot)		21.09.24	
8	Sampling and Distribution		01.10.24	
9	Probability Distributions (eg: Binomial)		15.10.24	
10	Hypothesis Testing		22.10.24	
11	Comparing Two Samples (A/B Testing, Deflategate, Causality)		29.10.24	
12	Estimating the unknown Parameter (Percentile Method, Bootstrap Method, Confidence Intervals)		05.11.24	
13	Prediction and Classification		12.11.24	
14	Assignment 1		08.10.24	

**Department of Computer Science and Engineering**