

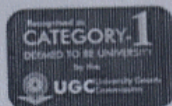


DV Lab

20CA214



Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University) established U.O. No. 1936



School of Computing
Department of Computer Science & Engineering
(Artificial Intelligence and Machine Learning)

ACADEMIC YEAR 2025-26 (SUMMER SEMESTER)

LAB RECORD NOTEBOOK

10212CA214 - DATA VISUALIZATION

NAME: M.R. Tejeshwar Reddy

VTU.NO: 24923

REG.NO: 23UECL0037

BRANCH: CSE(AI/ML)

YEAR/SEM: 3rd / 5th

SLOT: S2L1



Vel Tech
Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Approved by the Government of Tamil Nadu and Affiliated to UGC, New Delhi)



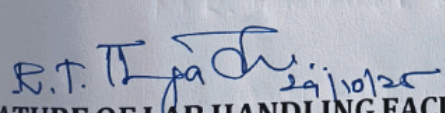
School of Computing
Department of Computer Science & Engineering
(Artificial Intelligence and Machine Learning)

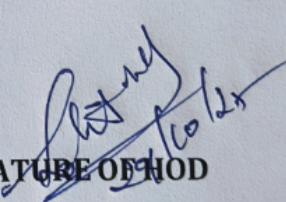
ACADEMIC YEAR 2025-26 (SUMMER SEMESTER)

BONAFIDE CERTIFICATE

NAME : M.R.Teleshwar Reddy BRANCH : CSE(AI)ML
TU NO. : 24923 REG.NO. : 23UECL0037
YEAR/SEM : 3rd / 5th SLOT NO. : 51214

Certified that this is a bonafide record of work done by above student in the "10212CA214 - DATA VISUALIZATION LABORATORY" during the year 2025-2026 (Summer Semester).


SIGNATURE OF LAB HANDLING FACULTY


SIGNATURE OF HEAD

Submitted for the Semester Practical Examination held on 03.11.25 at
Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology.

INTERNAL EXAMINER

EXTERNAL EXAMINER



DV Lab

10213CA214



Name : M.R. Tejeshwar reddy
AI/ML 3rd year
STD : SEC : ROLL NO : 24923

INDEX

Date	Title	Page No.	Marks	Faculty Signature
21/07/25	Exploration of Data Visualization Tools like Tableau, Python libraries, D3.js	1-5	17	21/7
28/07/25	To visualize and perform Univariate analysis using continuous and categorical data	6-9	16	28/7
04/08/25	To visualize and perform Bivariate analysis using continuous and categorical data	10-12	16	4/8
11/08/25	To visualize and perform Multivariate analysis using Multiple variables involving Multiple measures	13-14	17	11/8
18/08/25	To design and perform visualization for Trees	15-18	17	18/8
25/08/25	To design and perform visualization for Graphs and Networks	19-21	16	25/8
08/09/25	To generate insight using Text Network Analysis and Visualization	22-29	18	8/9
15/09/25	To analyze and visualize Spatial and Geospatial data	30-32	20	15/9
29/09/25	To analyze and visualize Time Oriented Data	33-36	18	29/9
13/10/25	Use Case: Earth - Quake and Geospatial data	36-41	18	13/10
27/10/25	Use Case: Performance of different company departments over year	42-47	19	27/10

Total Marks: 192/220

Signature of Faculty

I N D E X

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R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1990)



School of Computing
Department of Computer Science & Engineering
(Artificial Intelligence and Machine Learning)
ACADEMIC YEAR 2025-26 (SUMMER SEMESTER)

LAB RECORD NOTEBOOK

10212CA214 - DATA VISUALIZATION

NAME: R, Navadeep

VTU.NO: 25011

REG.NO: 230EC10050

BRANCH: CSE(AIML)

YEAR/SEM: 3rd year - 1st sem

SLOT: S₁₂ L₁



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R&D Institute of Science and Technology
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School of Computing
Department of Computer Science & Engineering
(Artificial Intelligence and Machine Learning)

ACADEMIC YEAR 2025-26 (SUMMER SEMESTER)

BONAFIDE CERTIFICATE

NAME : R. Navadeep

BRANCH : CSE(AIML)

VTU NO. : 25011

REG.NO. : 23UECL0650

YEAR/SEM : 3rd yr - 1st sem

SLOT NO. : S12L1

Certified that this is a bonafide record of work done by above student in the **"10212CA214 - DATA VISUALIZATION LABORATORY"** during the year 2025-2026 (Summer Semester).

R. T. Thapa
29/10/25

SIGNATURE OF LAB HANDLING FACULTY


29

SIGNATURE OF HOD

Submitted for the Semester Practical Examination held on **03.11.25** at
Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology.

INTERNAL EXAMINER

EXTERNAL EXAMINER

output:

1. pandas is a powerful data manipulation and analysis library.
 2. `pd.read_csv` reads the csv file.
 3. `df.head()` shows the first 5 rows of the dataset.
 4. `len(df.columns)` returns the total no. of Columns.
 5. `df.sort_values` sorts the dataframe.
 6. `df.unique` shows the no. of unique values in each Column.
 7. `df.shape` gives a tuple (rows, Columns) represents.
- 