

PARUL INSTITUTE OF TECHNOLOGY FACULTY OF ENGINEERING & TECHNOLOGY PARUL UNIVERSITY

Assignment-2_DADV

- Q.1 Discuss why Python is a preferred language for data analysis and statistical computing. Include at least three key features of Python that make it suitable for these purposes.
- Q.2 Write a Python script to load a dataset from a CSV file, and display the first five rows of the dataset. (Assume the dataset file is named data.csv).
- Q.3 Define and explain the importance of the measures of central tendency (mean, median, mode) and measures of dispersion (range, variance, standard deviation).
- Q.4 Calculate the mean, median, mode, variance, and standard deviation for the following dataset:
- $4,8,6,5,3,8,9,10,6,74,\,8,\,6,\,5,\,3,\,8,\,9,\,10,\,6,\,74,8,6,5,3,8,9,10,6,7$
- Q.5 Differentiate between population variance and sample variance. Why is it important to distinguish between the two?

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