

**Computer Science and Engineering Department, SVNIT, Surat**  
**M.Tech.-I DS, Semester-1**  
**Foundation of Data Science (CSDS111)**  
**Lab Assignment: 3**

Data Exploration:

- Select any numerical dataset in .csv format and use it for the following tasks:
1. Use built-in functions of python libraries, to perform all arithmetic and statistical operations performed in assignment 2. Display the results.
  2. Use any two different mean formulas and display both mean values for first (25%, 50% and 75%) and 100% data. And compare both the mean values for all subsets.
  3. Perform following:
    - a. Display all fields of dataset and prepare new sub set of datasets as per user's choice
      - i. One column
      - ii. Two columns
    - b. Display total number of rows of dataset
      - i. First row, Last row
      - ii. Prepare new subset of datasetsAs per user's choice: N rows from the beginning, N rows from the end and N random rows
    - c. Prepare new sub set of datasets with N rows and M columns as per the user's choice
  4. Using built-in functions like describe(), generate the summary for the numeric columns in the dataset.
  5. Without using built-in functions, perform all the operations displayed in the above question.