PMCA507P- MACHINE LEARNING LAB - MCA STUDENTS

LAB EXERCISE PROGRAMS

WEEK : 19TH – 22nd January 2024

1. Write a Pandas program to convert your name as dictionary into a Pandas series
2. Write a Pandas program to convert a NumPy array to a Pandas series
3. Write a Pandas program to create the mean and standard deviation of the data of a given Series
4. Write a Pandas program to import given excel data into a Pandas dataframe . Excel data will have the following features with 5 records
    i. Register Number
    ii. Name of Students
    iii. No. of Subjects registered in this semester
5. Write a Pandas program to import above excel data into a dataframe and find details where " Register Number " > 10
6. Write a Python Pandas program to get the columns , column title and genres of the DataFrame and obtain any dataframe from internet usually it has file extension .csv (https://www.kaggle.com/datasets/rounakbanik/the-movies-dataset?select=movies_metadata.csv)
7. Use this dataset https://raw.githubusercontent.com/mwaskom/seaborn-data/master/diamonds.csv
    a. Write a Pandas program
        i. To read a csv file from a specified source and print the first 7 rows
        ii. To create a new 'Quality -color' Series (use bracket notation to define the Series name) of the diamonds DataFrame.
        iii. To filter the DataFrame rows to only show carat weight at least 0.3
        iv. To create a side-by-side bar plot of the diamonds DataFrame
        v. To calculate various summary statistics of cut series of diamonds DataFrame.
        vi. To create a histogram of the 'carat' Series (distribution of a numerical variable) of diamonds DataFrame.