ASSIGNMENT-1

**Name: sasank Reg no:21bce9712**

# Task - 1 create a pandas data frame (data frame name as df)with numpy random valueS(4 features and 4 observations)

import pandas as pd import numpy as np

data = np.random.rand(4, 4)

df = pd.DataFrame(data, columns=['Feature1', 'Feature2', 'Feature3', 'Feature4'])

print(df)

# Task- 2 Rename the task-1 df data frame column names to random value 1,Random value 2 ,random value 3 &Random value 4

import pandas as pd import numpy as np

data = np.random.rand(4, 4)

df = pd.DataFrame(data, columns=['Feature1', 'Feature2', 'Feature3', 'Feature4'])

df = df.rename(columns={'Feature1': 'Random Value 1', 'Feature2': 'Random Value 2',

'Feature3': 'Random Value 3', 'Feature4': 'Random Value 4'})

print(df)

# Task 3- Check the descriptive statistics of 'df'

print(df.describe())

# Task 4- check for the null values in df and find the data type of the column

null\_values = df.isnull().sum()

data\_types = df.dtypes

print("Null Values:") print(null\_values) print("\nData Types:") print(data\_types)

# Task 5 - Display the Random value 2 & Random value 3 column with location method and index location method

selected\_columns\_loc = df.loc[:, ["Random Value 2", "Random Value 3"]] print(selected\_columns\_loc)

selected\_columns\_iloc = df.iloc[:, [1, 2]] print(selected\_columns\_iloc)