**IMPORT STATEMENTS**

**import pandas as pd**

**import matplotlib.pyplot as plt**

**CODE FOR MAIN MENU**

**def menu():**

**print('\n\n\n\n\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*’)**

**print(' Employee Management System ')**

**print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n')**

**print("1. Data Analysis")**

**print("2. Data Manipulation")**

**print("3. Data Visualization")**

**print("0. Exit")**

**print("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")**

**CODE FOR MENU’S OPTION 1**

**def sub\_menu1():**

**print(" 1. Reading CSV file")**

**print(" 2. Reading file without Index")**

**print(" 3. Reading file with new Column names")**

**CODE FOR MENU’S OPTION 2**

**def sub\_menu2():**

**print(" 1. Reading few rows ")**

**print(" 2. Read 3 records from top and 2 from bottom from File")**

**print(" 3. Duplicate file with new name")**

**print(" 4. Read with specific columns ")**

**print(" 5. Create csv file with dataframe ")**

**print(" 6. Read csv file - emp ")**

**print(" 7. Find Maximum Salary ")**

**print(" 8. Create datailemp file with data given in df2 ")**

**CODE FOR MENU’S OPTION 3**

**def sub\_menu3():**

**print(" 1. Line Plot")**

**print(" 2. Bar Plot")**

**CODE FOR READING CSV FILE**

**def read():**

**print()**

**print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*')**

**print(" Data Analysis ")**

**print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*')**

**print()**

**Data = pd.read\_csv('D:\Employee Management Sys\EmpMgmt.csv')**

**print(Data)**

**CODE FOR READING CSV FILE WITHOUT INDEX**

**def no\_index():**

**Data2 = pd.read\_csv('D:\Employee Management Sys\EmpMgmt.csv', index\_col=0)**

**print()**

**print(' WITHOUT INDEX ')**

**print(Data2)**

**CODE FOR READING FILES WITH NEW COLUMN NAMES**

**def new\_clonam():**

**df=pd.read\_csv("D:\Employee Management Sys\EmpMgmt.csv", skiprows=1, names=[‘EID' , 'Ename','Age','Residence','Post','salary', 'Mobile'])**

**print()**

**print(df)**

***NOTE: In above command for new column names new csv file is created.***

**CODE FOR READING FEW ROWS**

**def readRow():**

**print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*')**

**print(' Data Manipulation ')**

**print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*')**

**print(" Reading few rows \n")**

**df = pd.read\_csv('D:\Employee Management Sys\EmpMgmt.csv', nrows=3)**

**print(df)**

**df = pd.read\_csv('D:\Employee Management Sys\EmpMgmt.csv', nrows=5)**

**print('\n', df)**

**CODE FOR READING TOP 3 ROWS AND LAST 2 ROWS FROM FILE**

**def top\_bottom():**

**print('\n Reading top 3 rows and last 2 rows from file \n')**

**df=pd.read\_csv("D:\Employee Management Sys\EmpMgmt.csv")**

**#print(df)**

**print(' top 3 rows \n')**

**print(df.head(3))**

**print('\n last 2 rows \n')**

**print(df.tail(2))**

**CODE FOR DUPLICATE FILE WITH NEW NAME**

**def duplicate():**

**print(' Duplicate file with new name \n')**

**print(" duplicate file with new name as empnew \n")**

**df=pd.read\_csv("D:\Employee Management Sys\EmpMgmt.csv")**

**df.to\_csv("EmpMgmt2.csv")**

**print(df)**

**CODE FOR READING SPECIFIC COLUMNS**

**def spec\_col():**

**print('\n Read With Specific Columns \n')**

**df=pd.read\_csv("D:\EmployeeManagementSys\EmpMgmt.csv",usecols=['EmpID' ,'Name','Salary'])**

**print(df)**

**CODE FOR CREATING NEW CSV FILE USING DATAFRAME**

**def create\_file():**

**print('\n Create csv file with dataframe \n')**

**students={'NewEmplyee':[110,111,112,113,114,115],'Name':['Sunil','Amit','Neeta','Uma','Ajay','Ravi']}**

**df1=pd.DataFrame(students)**

**print(df1)**

**df1.to\_csv("EmpMgmt3.csv")**

**CODE TO READ NEW CSV FILE**

**def csv():**

**print('\n Read csv file - emp \n')**

**print( ' Reading File emp \n')**

**df=pd.read\_csv("D:\Employee Management Sys\EmpMgmt.csv")**

**print(df)**

**CODE TO FIND MAXIMUM SALARY**

**def maxsal():**

**print('\n Find Maximum Salary \n')**

**df=pd.read\_csv("D:\Employee Management Sys\EmpMgmt.csv")**

**print("Highest Salary")**

**print(df.Salary.max())**

**CODE FOR CREATE DATAILEMP FILE WITH DATA GIVEN IN CSV FILE**

**def create\_detailemp():**

**print('\n Create datailemp file with data given in df2 \n')**

**employee={'FirstName':['Tarun','Arvind','Bhuvan','Rakesh'],'LastName':['Kumar','Jain','Gupta','Kumar'], 'Father Name':['S.K.Kumar','Rajinder Jain','Ravinder Gupta','J.Kumar']}**

**df2=pd.DataFrame(employee)**

**print(df2)**

**df2.to\_csv("EmpMgmt4.csv")**

**CODE FOR LINE GRAPH**

**def line\_graph():**

**print('\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*')**

**print(' Data Visualization ')**

**print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n')**

**print(' LINE GRAPH ')**

**df = pd.read\_csv('D:\Employee Management Sys\EmpMgmt.csv')**

**x = df['Name']**

**y = df['Salary']**

**plt.xlabel('Name')**

**plt.ylabel('Salary')**

**plt.scatter(x, y)**

**plt.plot(x, y)**

**plt.show()**

**CODE FOR BAR GRAPH**

**def bar\_graph():**

**print('\n BAR GRAPH ')**

**df2 = pd.read\_csv('D:\Employee Management Sys\EmpMgmt.csv')**

**x = df2['Name']**

**y = df2['Salary']**

**plt.xlabel('Name')**

**plt.ylabel('Salary')**

**plt.bar(x, y)**

**plt.show()**

**IF-ELSE STATEMENTS USED FOR CHOOSING THE OPTIONS FROM MENU(s) AND SUB-MENU(s)**

**menu()**

**opt = int(input("Enter Your Choice: "))**

**while opt!=0:**

**if opt==1:**

**sub\_menu1()**

**opt1=""**

**opt1=int(input('Choose The Option: '))**

**If opt1==1:**

**read()**

**elif opt1==2:**

**no\_index()**

**elif opt1==3:**

**new\_clonam()**

**else:**

**print('Invalid Option')**

**elif opt==2:**

**sub\_menu2()**

**opt2=""**

**opt2=int(input('Choose The Option: '))**

**If opt2==1:**

**readRow()**

**elif opt2==2:**

**top\_bottom()**

**elif opt2==3:**

**duplicate()**

**elif opt2==4:**

**spec\_col()**

**elif opt2==5:**

**create\_file()**

**elif opt2==6:**

**csv()**

**elif opt2==7:**

**maxsal()**

**elif opt2==8:**

**create\_detailemp()**

**else:**

**print('invalid option')**

**elif opt==3:**

**sub\_menu3()**

**opt3=""**

**opt3=int(input('Choose Your Option: '))**

**if opt3==1:**

**line\_graph()**

**elif opt3==2:**

**bar\_graph()**

**else:**

**print('invalid option')**

**else:**

**print("Invalid Choice")**

**menu()**

**opt = int(input("Enter Your Choice: "))**