Rollwala Computer Center

INTRODUCTION TO PYTHON PROGRAMMING

Assignment-5

Feb 20, 2022

Name: **Akshit Trivedi**

Roll No: **40**

Course: **Master of Computer Application**

Sem: **1ST**

PYTHON ASSIGNMENT-5

Roll No: 40 **Name: Akshit Trivedi**

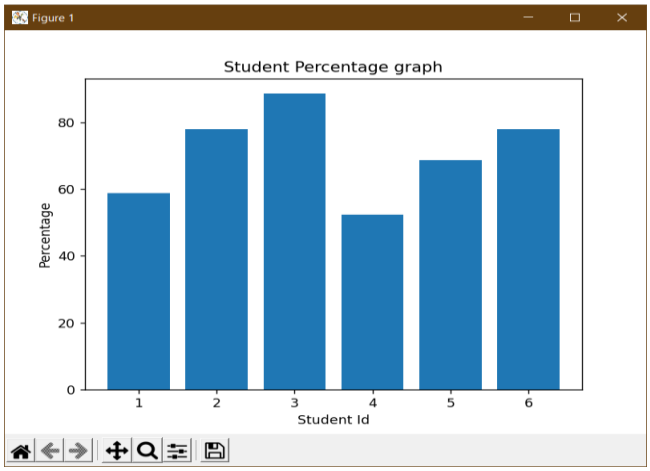
Class: MCA-1 **Year: 2021-22**

1 Write a program to display student information like ID on x- axis and percentage on y-axis in the form of bar graph.

INPUT:

```
'''
1.  Write a program to display student information like ID on x-
    axis and percentage on y-axis in the form of bar graph.
Name  : Akshit Trivedi        Roll No.: 40
Class : MCA sem-1        Year    : 2021-22
'''
import matplotlib.pyplot as plt
import pandas as pd

df = pd.read_csv("51_student.csv")
x = df["Id"]
y= df["Percentage"]

plt.bar(x, y)

plt.title("Student Percentage graph")
plt.xlabel("Student Id")
plt.ylabel("Percentage")

plt.show()
```

OUTPUT:



PYTHON ASSIGNMENT-5

Roll No: 40 **Name: Akshit Trivedi**

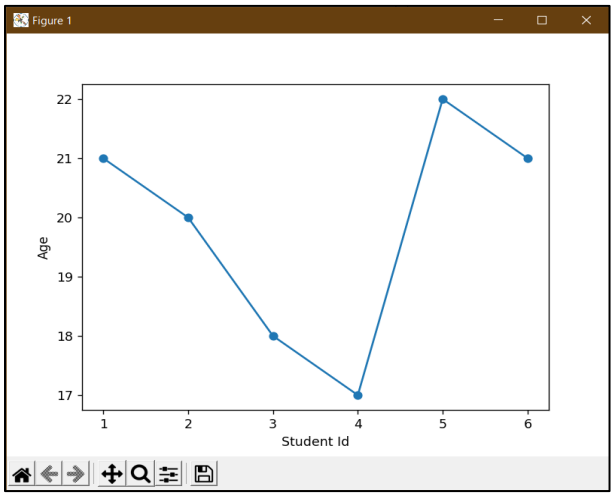
Class: MCA-1 **Year: 2021-22**

2 Write a program to display student information like ID on x- axis and Age on y-axis in the form of line graph.

INPUT:

```
'''
2.  Write a program to display student information like ID on x-
    axis and Age on y-axis in the form of line graph.

Name  : Akshit Trivedi        Roll No.: 40
Class : MCA sem-1        Year    : 2021-22
'''

import matplotlib.pyplot as plt
import pandas as pd

mer = pd.read_csv("student.csv")

x=mer["Id"]
y=mer["Age"]

plt.xlabel("Student Id")
plt.ylabel("Age")
plt.scatter(x,y)
plt.plot(x,y)

plt.show()
```

OUTPUT:



PYTHON ASSIGNMENT-5

Roll No: 40 **Name: Akshit Trivedi**

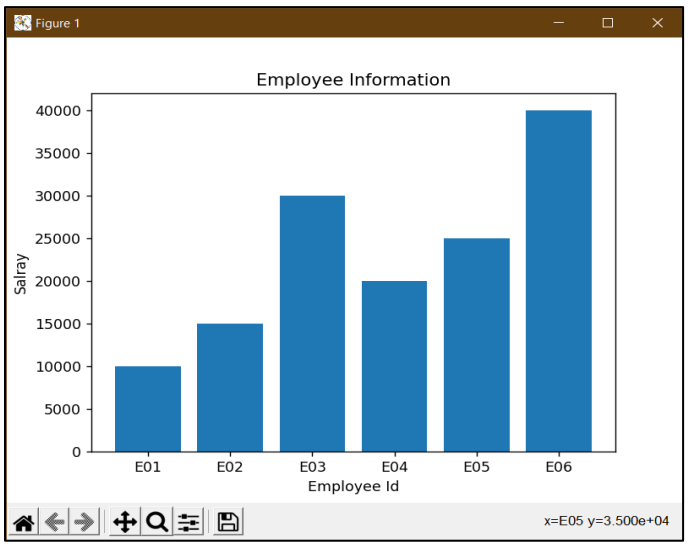
Class: MCA-1 **Year: 2021-22**

3 Write a program to display employee information like ID on x-axis and salary on y-axis in the form of bar graph.

INPUT:

```
'''
3.  Write a program to display employee information like ID on x-
    axis and salary on y-axis in the form of bar graph.

Name  : Akshit Trivedi        Roll No.: 40
Class : MCA sem-1        Year    : 2021-22
'''
import matplotlib.pyplot as plt
import pandas as pd

df = pd.read_csv("information.csv")

x= df["eid"]
y=df["salary"]

plt.title("Employee Information")
plt.xlabel("Employee Id")
plt.ylabel("Salray")
plt.bar(x,y)

plt.show()
```

OUTPUT:



PYTHON ASSIGNMENT-5

Roll No: 40 **Name: Akshit Trivedi**

Class: MCA-1 **Year: 2021-22**

4 Write a program to display employee information like ID on x-axis and salary on y-axis in the form of bar graph for two or more departments.

INPUT:

```
'''
4.  Write a program to display employee information like ID on x-axis
    and salary on y-axis in the form of bar graph for two or more departments.

Name  : Akshit Trivedi        Roll No.: 40
Class : MCA sem-1        Year    : 2021-22
'''
import matplotlib.pyplot as plt
import pandas as pd

df = pd.read_csv("information.csv")
# read data from csv

specified1 = df.loc[df['dept'] == 'MCA']
x1 = specified1['eid']
y1 = specified1['salary']

specified2 = df.loc[df['dept'] == 'MBA']
x2 = specified2['eid']
y2 = specified2['salary']

plt.xlabel("Employee Id")
plt.ylabel("Salary")
plt.bar(x1, y1,label = "MCA Department")
plt.bar(x2, y2,label = "MBA Department")
# plt.bar(x,y)

plt.legend()
plt.show()
```

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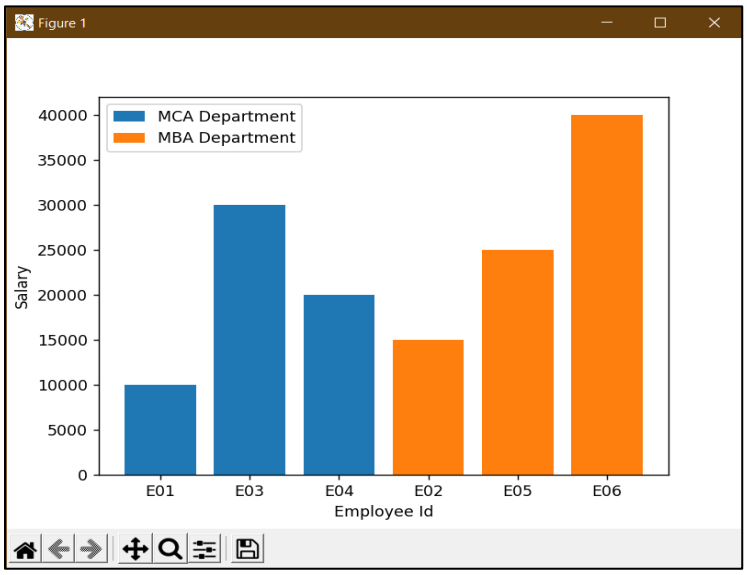
Roll No: 40 **Name: Akshit Trivedi**

Class: MCA-1 **Year: 2021-22**

OUTPUT:



5 Write a program to create a line graph to show the profit of a Company in various years.

INPUT:

```
'''
5.  Write a program to create a line graph to show the profit of a
    company in various years.

Name  : Akshit Trivedi        Roll No.: 40
Class : MCA sem-1        Year    : 2021-22
'''

import matplotlib.pyplot as plt
import pandas as pd

df = pd.read_csv("TCS.csv")

x= df["Year"]
y=df["Profit"]

plt.title("Tata Consultancy & Services")
plt.xlabel("Years")
plt.ylabel("Profit in Crs.")
```

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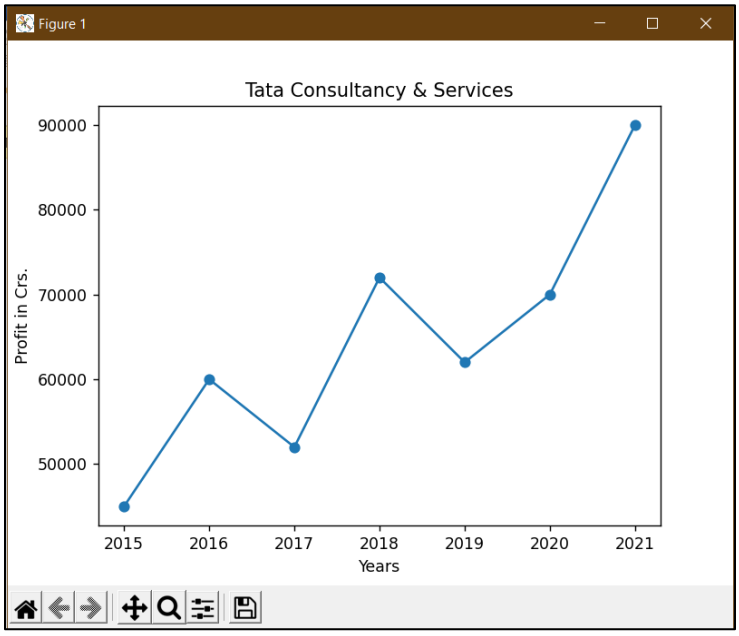
Roll No: 40 **Name: Akshit Trivedi**

Class: MCA-1 **Year: 2021-22**

```
plt.plot(x,y)
plt.scatter(x, y)

plt.show()
```

OUTPUT:



6 Write a program to sort given string array in ascending order Write a program to display student information of admission of last three using bar graph. You need to take last three year information for three programs like MCA, M.Tech and M.Sc.

INPUT:

```
'''
6.  Write a program to display student information of admission of
    last three using bar graph. You need to take last three year
    information for three programs like MCA, M.Tech and M.Sc.

Name  : Akshit Trivedi        Roll No.: 40
Class : MCA sem-1        Year    : 2021-22
'''

import matplotlib.pyplot as plt
```

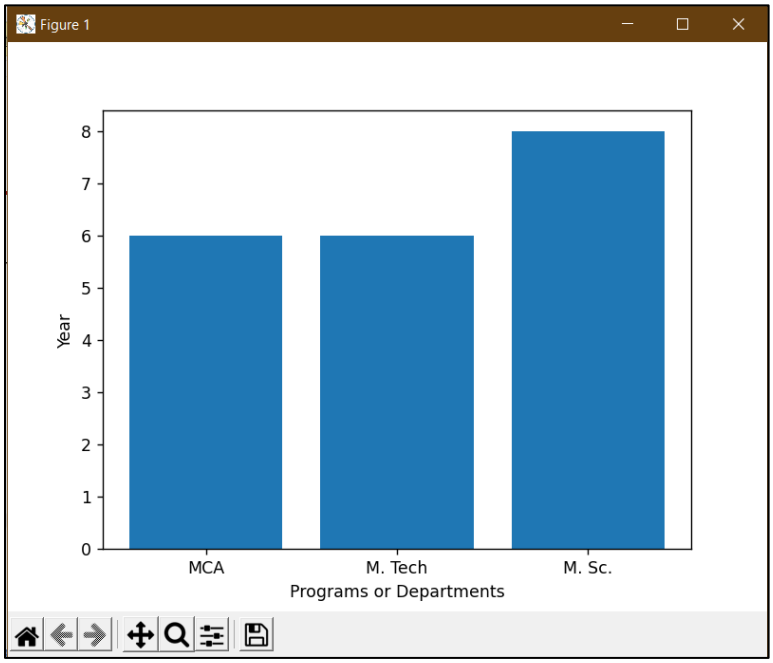
PYTHON ASSIGNMENT-5

Roll No: 40 **Name: Akshit Trivedi**

Class: MCA-1 **Year: 2021-22**

```
import pandas as pd

df = pd.read_csv("Student_program.csv")

x1 = df.Program.unique()
y1= df.groupby(['Program'])['Id'].count()

plt.xlabel("Programs or Departments")
plt.ylabel("Year")
plt.bar(x1,y1)

plt.show()
```

OUTPUT:



7 Write a program to display a pie chart for number of bank accounts opened by five various bank in last five days.

INPUT:

```
'''
7.  Write a program to display a pie chart for number of bank
    accounts opened by five various bank in last five days.
```

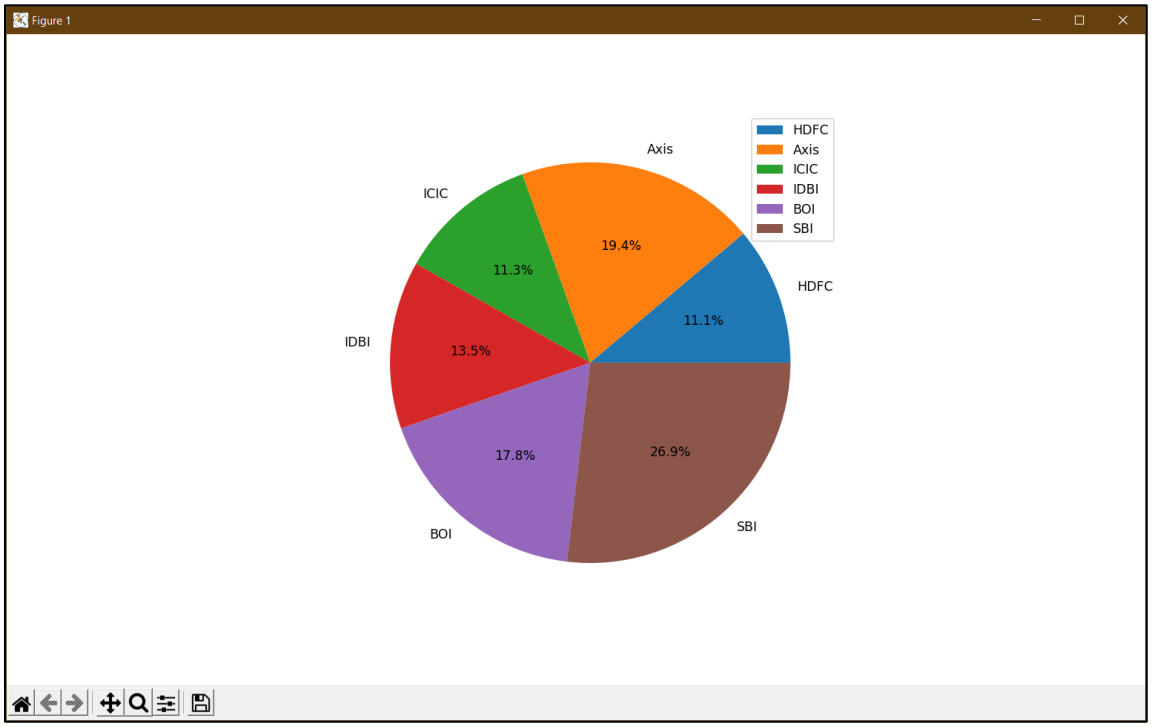
PYTHON ASSIGNMENT-5

Roll No: 40 **Name: Akshit Trivedi**

Class: MCA-1 **Year: 2021-22**

```
Name  : Akshit Trivedi        Roll No.: 40
Class : MCA sem-1        Year    : 2021-22
'''

import matplotlib.pyplot as plt
import pandas as pd

mer = pd.read_csv("Bank.csv")

x=mer["Bank"]
y=mer["Account"]

plt.pie(y, labels = x, autopct = '%1.1f%%')
plt.legend()
plt.show()
```

OUTPUT:



PYTHON ASSIGNMENT-5

Roll No: 40 **Name: Akshit Trivedi**

Class: MCA-1 **Year: 2021-22**

8 Write a program that will read a string and rewrite it in the alphabetical order
Write a program to display a pie chart for how many no of students take admission in different four courses at department. Courses like : MCA, PGDCSA, M.Sc.(AI&ML), M.Tech, etc.

INPUT:

```
'''
8.  Write a program to display a pie chart for how many no of
    students take admission in different four courses at
    department. Courses like : MCA, PGDCSA, M.Sc.(AI&ML),
    M.Tech, etc.

Name  : Akshit Trivedi        Roll No.: 40
Class : MCA sem-1        Year    : 2021-22
'''

import matplotlib.pyplot as plt
import pandas as pd

df = pd.read_csv("addmision_student.csv")

x = df.Program.unique()
y= df.groupby(['Program'])['Id'].count()

plt.pie(y, labels = x)
plt.legend()
plt.show()
```

OUTPUT: