Task - 10

Use matplotlib module for plotting in python

10.1

Aim: To use matplotlib module for plotting in python

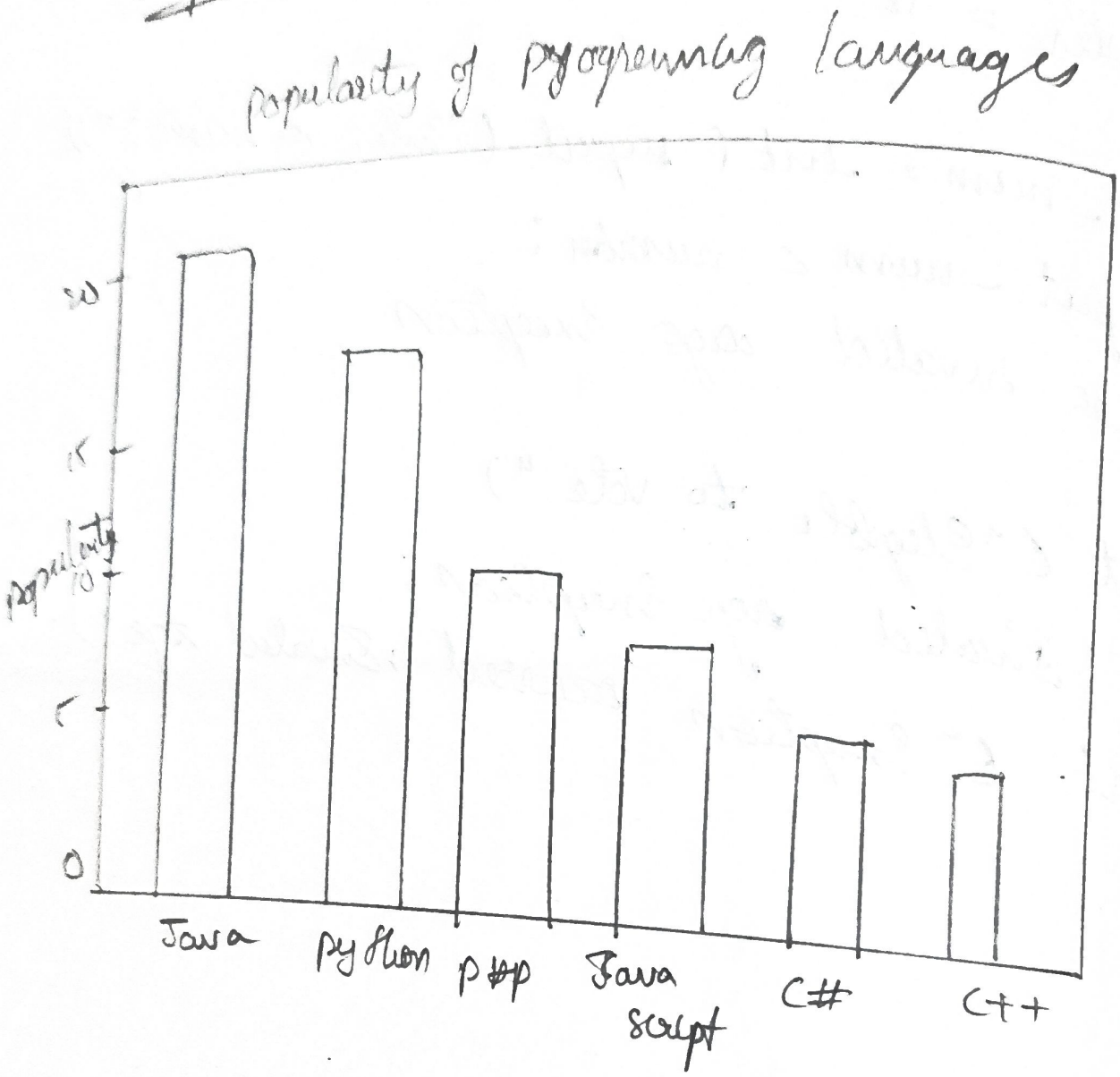
Algorithm:

1. Define two lists for Programming languages and their popularity respectively.
2. Find the maximum popularity value in list.
3. Define a scaling factor to scale the bar length with in a certain limit.
4. For Each language and popularity pair.

Program:

```
# pip instal matplotlib
  import matplotlib.pyplot as plt
  languages = ['Java', 'Python', 'PHP', 'JavaScript', 'C++']
  popularity = [22.2, 17.6, 8.8, 8.7, 6.7]
plt.bar(languages, popularity, color = 'b')
plt.title('popularity of programming languages')
plt.xlabel('Programming languages')
  plt.ylabel('Popularity')
  plt.show().
```

output :


popularity of programming language
20
15
popularity
10
5
0
Java
Python
php
Java script
C#
C++

Task - 10-2

write a python programming to create a piechart of the popularity of programming languages

Algorithm:

1. Create a list of programming languages & popularity
2. Create a pie chart using the matplotlib library
3. Set the title & legend for pie chart.
4. Show the pie chart.

program:

```
import matplotlib.pyplot as plt

# step1:
languages = ['Java', 'python', 'PHP', 'Javascript',
                                    'C++']
popularity = [22.2, 17.6, 8.8, 7.7, 6.7]

# Step 2:
plt.pie(popularity, labels = languages, autopct = '%1.1f%%')

# Step3:
plt.title("Popularity of programming languages")
plt.legend(languages, loc = "best")
# Step 4:
plt.show()
```

VELTECH	
EX No.	10
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	5
VIVA VOCE (3)	5
RECORD (4)	
TOTAL (15)	
SIGN WITH DATE	15

Result:- Thus the python program use matlib module is executed successfully and verified successfully