

Dt: 8/10/25

Task 10: Use Matplotlib Module for Plotting in Python

Aim:

Problem 10.1 write a python programming to display a bar chart of the popularity of Programming Language.

Algorithm:

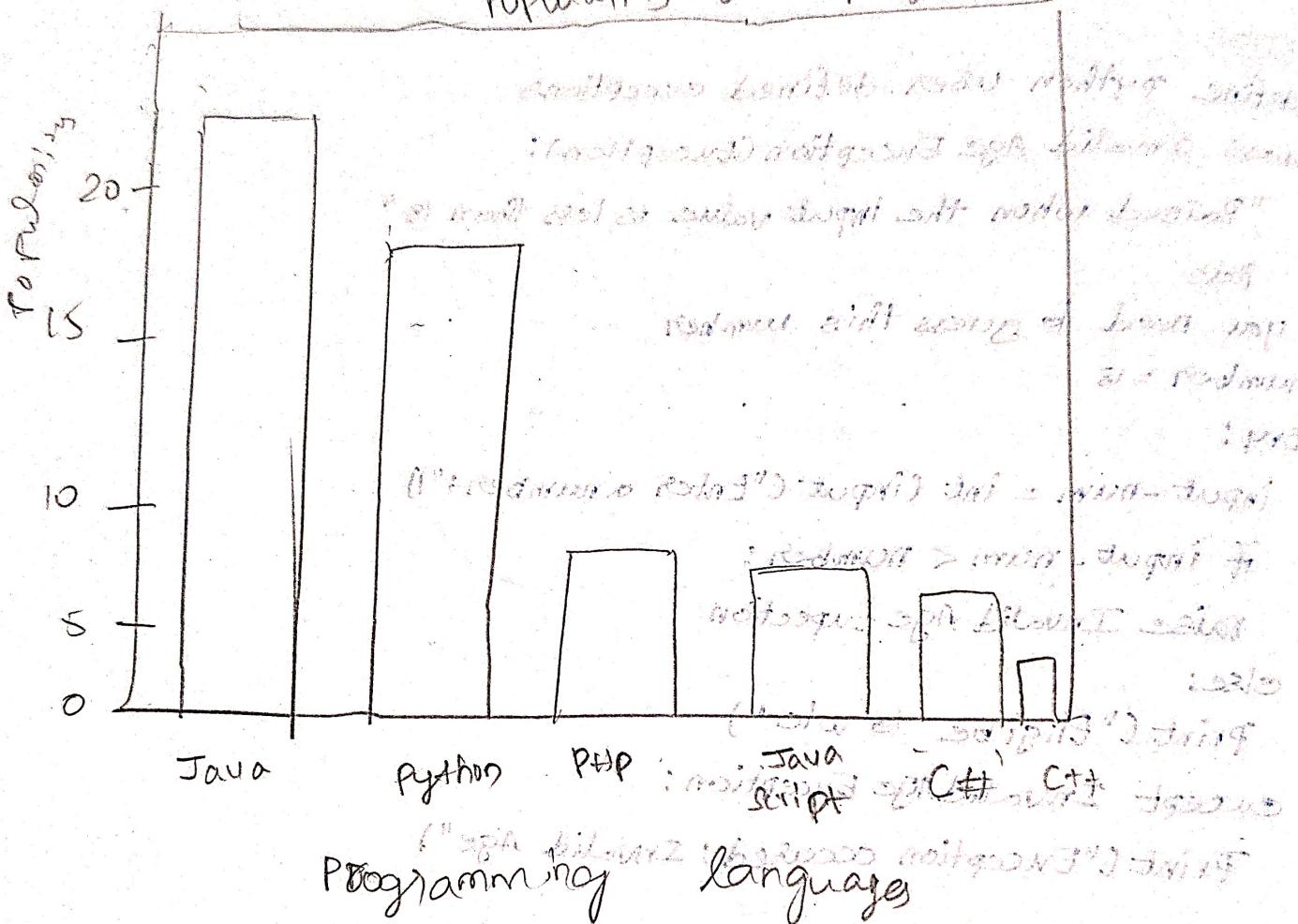
1. Define two lists for programming languages and their popularity respectively
2. Find the maximum Popularity value in the list
3. Define a Scaling Factor to scale the bar heights within a certain limit (e.g 50 characters)
4. For each language and popularity pair, calculate the bar height as the Popularity value scaled by the scaling factor.
5. Print the chart using a loop to iterate over the Programming language
 - a. Print the language name and a separator character
 - b. Use a loop to print the bar chart by printing the bar character a number of times equal to the bar height
 - c. Print the popularity value with a separator character & print a New line character.

Program:

```
import matplotlib.pyplot as plt

languages = ['Java', 'Python', 'PHP', 'JavaScript', 'C#', 'C++']
Popularity = [22.2, 17.6, 8.8, 8.7, 7.1, 6.7]

plt.bar(languages, Popularity, color = 'b')
plt.title('Popularity of programming Languages')
plt.xlabel('Programming Languages')
plt.ylabel('Popularity')
plt.show()
```



Task 10.2

Aim: To write a Python programming to create a pie chart of the popularity of programming languages.

Algorithm:

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

Program:

```
import matplotlib.pyplot as plt  
  
# Step 1  
languages = ['java', 'Python', 'PHP', 'Java script', 'C#', 'C++']  
Popularity = [22.2, 17.6, 8.8, 8.7, 7.7, 6.7]  
  
# Step 2  
plt.pie(Popularity, labels=languages, autopct='%.1f%%')  
  
# Step 3:  
plt.title('Popularity of Programming languages')  
plt.legend(labels=languages, loc="best")  
  
# Step 4:  
plt.show()
```

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RESULT AND ANALYSIS (5)	S
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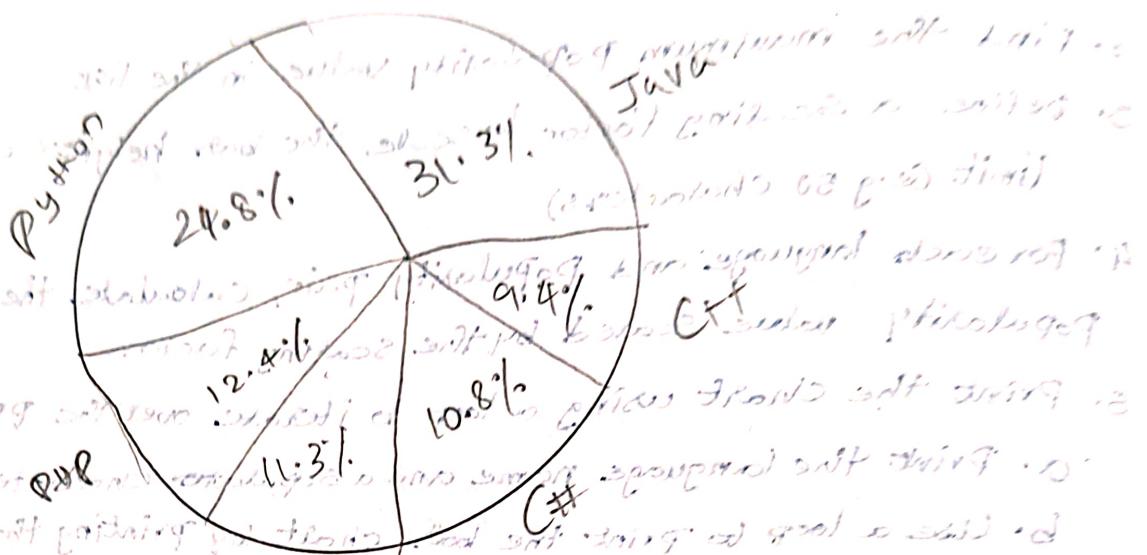
Result:

Thus the python programming use matplotlib module for Plotting is executed and verified successfully.

. Enhanced Environment

Environment

Environment is the sum of all physical and chemical factors in the surroundings which bear directly or indirectly on the life processes of an organism.



~~Human environment~~ is the environment created by man.

It includes all the activities of man which affect the environment.

Human environment consists of

Human environment

It is also called anthropogenic environment.

[Habitat, food, shelter, water, light, temperature, humidity, wind etc.] = environment

[Food, light, water, shelter, temperature, humidity, wind etc.] = habitat

(Habitat = shelter, environment, surroundings) Total = 31%

(Environment consisting of all the factors) Total = 31%

(Environment consisting of all the factors) Total = 31%

(Environment consisting of all the factors) Total = 31%

(Environment consisting of all the factors) Total = 31%

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