

Task 10: Use matplotlib module for plotting  
8/10/25 in Python

Aim: To use matplotlib module for plotting  
in Python.

Problem 10.1: Write a Python program to  
display a bar chart of the popularity of programming  
language

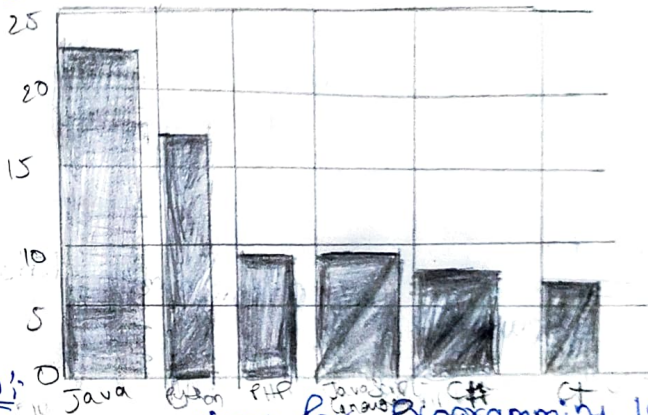
Sample data:-

Programming language: Java, Python, PHP, JavaScript

C#, C++.

Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7.

Sample output:-



Algorithm:-

1. Define two lists for Programming language and their Popularity respectively.
2. Find the maximum Popularity value in the list.
3. Define a scaling factor to scale the bar height within a certain limit.
4. For each language and Popularity pair, calculate the bar heights as the Popularity value scaled by the scaling factor.
5. Print the chart using a loop to iterate over the Programming language list and print the language name and separator character. Use a loop to print the bar chart by printing.

Program:-

```
# pip install matplotlib
import matplotlib.pyplot as plt

languages = ['Java', 'Python', 'PHP', 'JavaScript', 'C#', 'C++']
```

Popularity = [22.2, 17.6, 8.8, 8, 7.7, 6.7]

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

10.2:- Write a python 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:-

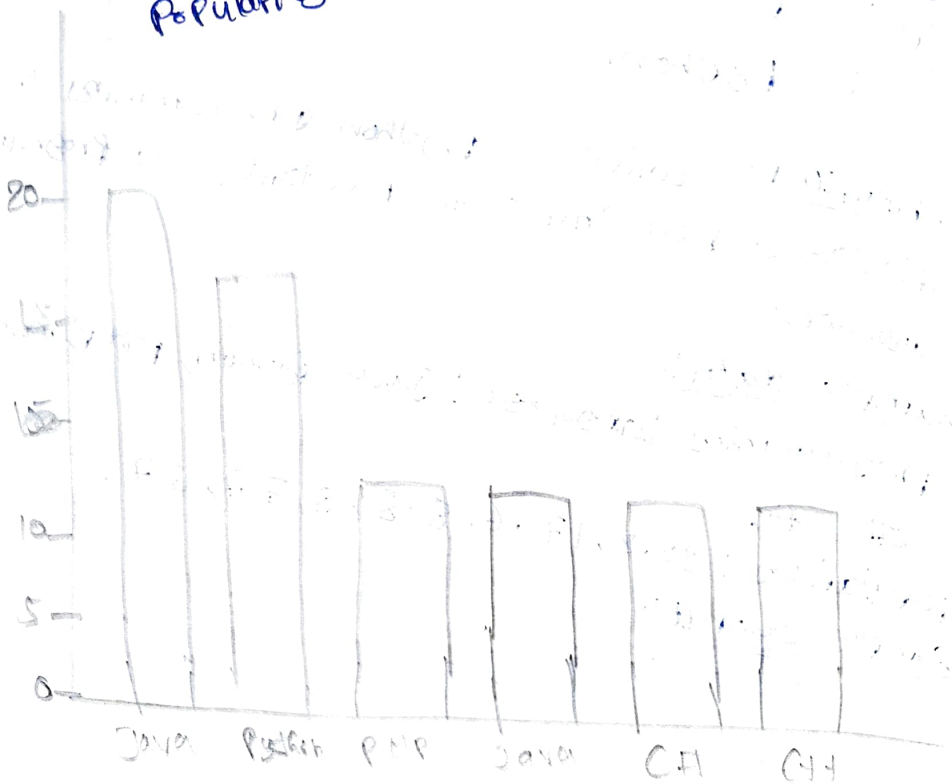
```
import matplotlib.pyplot as plt
languages = ['Java', 'Python', 'PHP', 'JavaScript', 'C#', 'C++']
popularity = [22.2, 19.6, 8.8, 8, 7.7, 6.7]
plt.title('Python Programming Languages')
plt.legend(languages, loc='best')
plt.show()
```

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TECHNICAL (5)	5
THEORY (5)	200
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Result:- Thus, the Python programme matplotlib module for plotting is executed and verified successfully.

## Output

### Popularity of Programming Languages



## Output:-

### Popularity of Programming Languages: