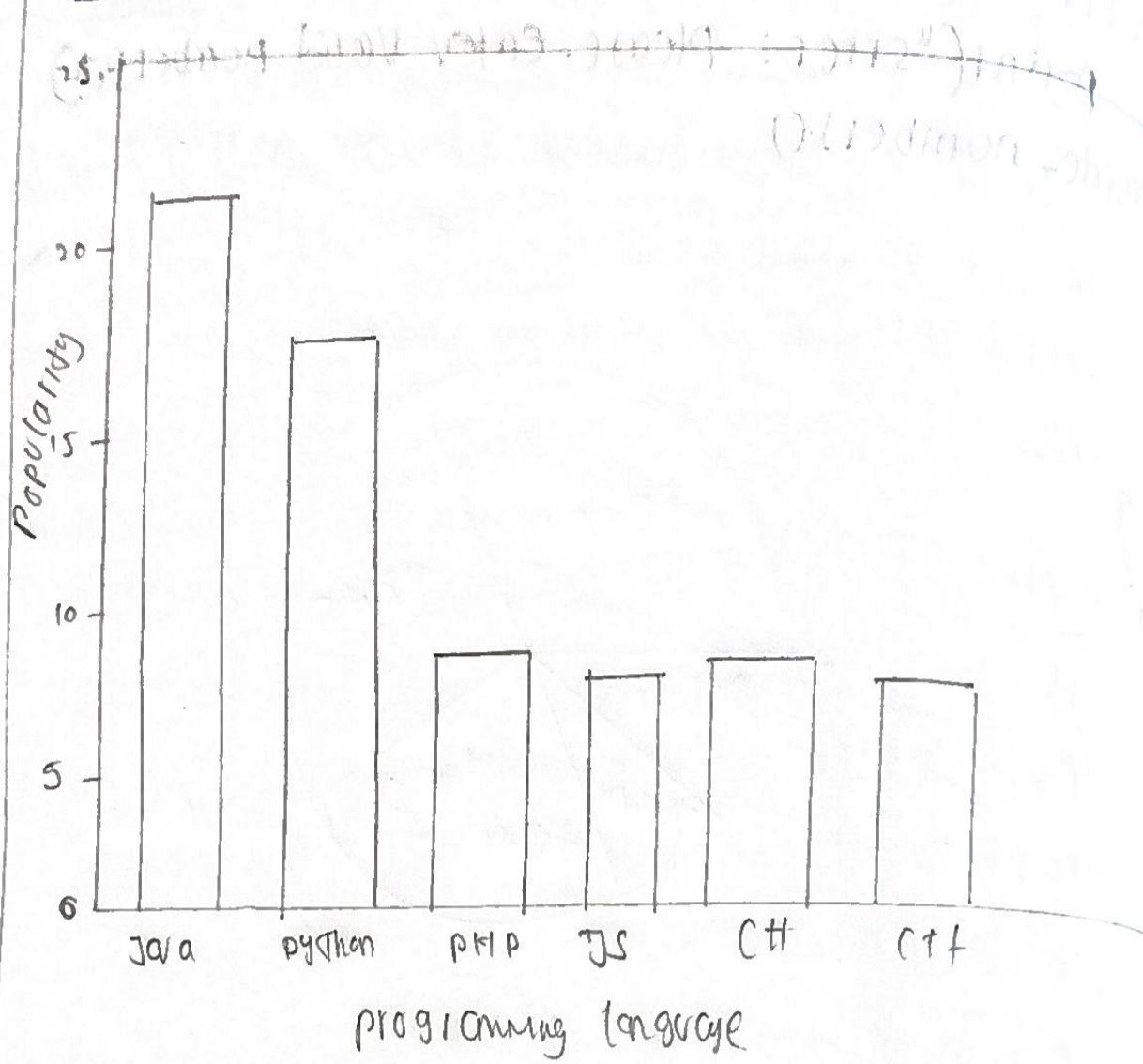


OUTPUT



Number of numbers ranging up to 1000
which contains both 0 and 1 in their
representation below by listing

use matplotlib module for plotting in python.

TASK 10

Date: 15-10-25

Aim: To use matplotlib module for plotting in python

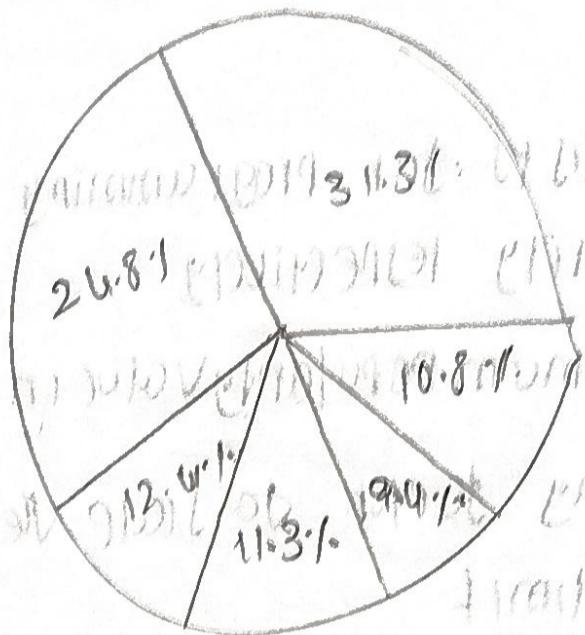
10.1 Write a python programming to display a bar chart for the popularity of programming languages

Algorithm:

1. Defines 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 with a certain limit
4. For each language and popularity pair, calculate the bar height as popularity value scaled by scaling factor.
5. Print the chart using loop

Program:

```
import matplotlib.pyplot as plt
languages = ['Java', 'Python', 'PHP', 'JavaScript', 'C#', 'C++']
popularity = [22.2, 19.6, 8.8, 8.5, 3.7, 6.7]
plt.bar(languages, popularity, color='b')
plt.title('Popularity of Programming Languages')
plt.xlabel('Programming Language')
plt.ylabel('Popularity')
plt.show()
```



9.0% ~~pure~~ ~~pure~~ ~~pure~~ ~~pure~~

~~pure~~

11.3% ~~pure~~ ~~pure~~ ~~pure~~ ~~pure~~

11.3% ~~pure~~ ~~pure~~ ~~pure~~ ~~pure~~

(Dedicated) ~~pure~~ ~~pure~~ ~~pure~~ ~~pure~~

~~pure~~ ~~pure~~ ~~pure~~ ~~pure~~

Aim:

Task 10.2

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 lib library
- 3. Set the title and legend for the piechart & show the pie chart

Program:

= = =

```
import matplotlib.pyplot as plt
```

#STEP

```
(languages ['Java', 'Python', 'C++', 'JavaScript', 'C', 'C#'])  
popularity = [22.2, 17.6, 8.8, 8.7, 7.7, 6.9]
```

```
plt.pie(popularity, labels=languages, autopct='%1.1f%%')
```

```
plt.title('Popularity of Programming Languages')
```

```
plt.legend(loc="best")
```

```
plt.show()
```

✓

| VEL TECH - CSE | |
|-------------------------|----|
| EX NO. | 10 |
| PERFORMANCE (5) | 5 |
| RESULT AND ANALYSIS (3) | 3 |
| VIVA VOCE (3) | 3 |
| RECORD (4) | 4 |
| TOTAL (15) | 15 |
| I SIGN WITH DATE | |

Result:

~~Show the python program use matplotlib lib module for plotting is executed and verified successfully~~