

MODULE 1 Practical Questions

Duration 60 Min

Any Two

1. Write a Python program to swap first and last element of the list.
2. Write Python program to find the length of list using for loop.
3. Given a list of numbers, you need to write a Python program to find the second largest number in the list.

`a=[10,56,23,89,23,45,90,110,34,78]`

4. Write a program to perform addition, subtraction, multiplication, integer division, floor division and modulo division on two integer and float.
5. Write a program to convert degree Fahrenheit to Celsius
6. Write a python program to find whether given string is palindrome.
eg: amaama

7. Write a python program using for loop to get the sum of given tuple

`b=(13,56,78,23,67,89,23)`

8. Write a python program to find the sum of dictionary values

`dicta = {'a': 100, 'b': 200, 'c': 300}`

9. Write a python program using inline function lambda to find the sum of list

Any Two

- 1 Write a python program to multiply an Identity matrix of dimension 3-by-3 with given matrix

`a=[[9 10 11]
[12 13 14]
[15 16 17]]`

- 2 Write a program to Check whether a NumPy array contains a specified row

- 3 Write a python program to flatten the NumPy matrix of size 3-by-3

`a=[[9 10 11]
[12 13 14]
[15 16 17]]`

4. Given a NumPy array whose underlying data is of 'int32' type. Change the dtype of the given object to 'float64'.

`a=[10, 20, 30, 40, 50]`

5. Write a python program to add matrices of dimension 3-by-3 with given matrix

`a=[[9 10 11]
[12 13 14]
[15 16 17]]`

```
b=[[ 19 30 11]
 [12 13 44] [15
 56 17]]
```

6. Write a python program to subtract matrices of dimension 3-by-3 with given matrix

```
a=[[ 99 110 111]
 [121 131 114]
 [151 146 177]]
```

```
b=[[ 19 30 11]
 [12 13 44] [15
 56 17]]
```

7. Write a program in python using NumPy to find the matrix mean.
- 8 Write a python program to count the number of elements along the rows and columns for given matrix

```
a=[[ 19 30 11]
 [12 13 44]
 [15 56 17]]
```

Any one

- 1 Write a python Matplotlib program to plot graph between x & y coordinates for below values:

```
x = [1, 2, 3, 4, 5, 6, 7, 8]
y = [2, 3, 1, 3, 1, 4, 2, 3]
```

2. Write a program to connect scatterplot points with line in Matplotlib?
3. Write a python Matplotlib program to plot cosine graph with below parametric values:
Amplitude: 4
frequency = 50

3. Import the sales.csv file and using matplotlib perform the following operations:
Link for CSV file - [Sales.csv](#)

1. Write a program to visualize the total profit of all months using line plot.
2. Write a program to visualize total profit of all months and show line plot with the following Style properties.
 - Line Style dotted and Line-color should be blue
 - Show legend at the upper right location.
 - X label name = Month Number
 - Y label name = Item Sold units number
 - Add a circle marker
 - Line marker color as yellow
 - Line width should be 5
3. Using pie chart visualize total unit's sale data for last year for each product.
4. Write a python Matplotlib program to plot $y=x^2$ (parabola) and add text "Parabola $Y = x^2$ " in the plot.

- 5 Write a python Matplotlib program to visualize a bar plot for given values

```
For X axis, a=[12,3,4,5]
For Y axis, b=[16,234,25,90,32]
```

6. Write a python Matplotlib program using sub plotting to generate line plots for values:

For plot1: y1=[14,67,23,89]

For plot2: y2=[23,78,12,34]

Any One

- 1 In Linux environment, create a python file for addition of two lists. Run piece of code from terminal
2. In Linux environment create two folders named Folder1 and Folder2. Place some .txt file in Folder1. Write needful commands in terminal to move the contents from Folder1 to Folder2.
3. In Linux environment,
 - i. list all hidden files in home directory
 - ii. remove a directory with subdirectories and files in it