Python Language Programming Lab (KCS-453)

Lab 1

- 1. To write a python program that takes in command line arguments as input and print the number of arguments.
- 2. To write a python program to perform Matrix Multiplication.

Python - Command Line Arguments

- python **test.py** arg1 arg2 arg3
- The Python **sys** module provides access to any command-line arguments via the **sys.argv**. This serves two purposes –
- **sys.argv** is the **list of** command-line arguments.
- **len(sys.argv)** is the number of command-line arguments.
- Here **sys.argv[0]** is the program ie. script name.

Problem1:

To write a python program that takes in command line arguments as input and print the number of arguments.

```
import sys
print('Number of arguments:', len(sys.argv))
print('Argument List:', sys.argv)
```

- **Input at command line**:
- **python lab1.py a b c**
- **Output:**
- **Number of arguments: 4**
- **Argument List: ['lab1.py', 'a', 'b', 'c']**

Problem 2:

To write a python program to perform Matrix Multiplication.

- **Input :**
- X = [[1, 7, 3], [3, 5, 6], [6, 8, 9]]
- Y = [[1, 1, 1, 2], [6, 7, 3, 0], [4, 5, 9, 1]]
- **Output :**
- [[55, 65, 49, 5],[57, 68, 72, 12],[90, 107, 111, 21]

- **Problem 3:** To write a python program that takes in command line arguments as input numbers than print the max value of those numbers.
- python problem3.py 23 45 67 ……..
- **Problem 4:** Take input both the matrices at run time then multiply the matrices

- **Problem 5:** Take matrix of order m X n and print the list of max column values.
- Input:
- A= [[55, 65, 49, 5],
- [98, 68, 18, 12],
- [90, 107, 66, 21]
- Output: [98,107,66,21]