# Lab 01

### **Topic**

Dynamic array in python

# **Objective**

• You can use list comprehension to create a dynamic array in one line.

Do all these tasks with dynamic array

#### Task (1):

Replace every Array element with the Multiplication of previous and next element, for the first and last values, multiply with their only consecutive elements. Create a function and pass the array to it (return a new array).

```
array= {5,6,4,8,12}.
```

Grading (25: 15+5+5 (Logic + Handling first and last elements + Print results))

## Task (2):

Solve this {2,5,3,5,4,8,10,3}. Find distance between the indices having value a= 2, b= 10. Create a function and pass the array with the values to it.

Grading (25: 15+5+5 (Logic + Handling elements not in the array + Print results))

#### Task (3):

Convert decimal numbers to binary numbers using a stack. Convert 10,37 and 48 to binary numbers.

Grading (50: 25+10+5+10 (Logic + Make a class for stack + if done without stack + Print results))