

## Lab Assignment Day-4

(list,tuple and set)

*ppattanayak@silicon.ac.in*

Q1.Consider a list (list = []). You can perform the following commands:

- a. insert i e: Insert integer at ith index.
- b. print: Print the list.
- c. remove e: Delete the first occurrence of integer .
- d. append e: Insert integer at the end of the list.
- e. sort: Sort the list.
- f. pop: Pop the last element from the list.
- g. reverse: Reverse the list.

Q2. Write a program that will create a list of N numbers and search an element using linear search.

Q3.Write a program that will create a list of N numbers and search an element using binary search(Assume that, the elements are in sorted order) .

Q4.Write a program that will read a list of elements from the user and display the largest prime number available in the list

**Example:**

L=[11,22,34,56,9,107,77,88,73,19,145]

**Output:** Largest Prime number is: 107

Q5. Write a program, that will arrange the elements in ascending order using Bubble sort.

Q6. Write a program, that will arrange the elements in ascending order using insertion sort.

Q7. Write a program that will remove the duplicate elements from a list.

Q8. Write a program which will store the student information in the form of a nested list as follows. ( i.e: student\_name, roll\_number, avg\_marks )

**Example:**

```
student=[ ["Rahul", 100, 77.5],["Sonali", 103, 35.5], ["Hrisikesh", 101,88.0],  
          ["Pravit", 102, 87.5], ["Tanmaya", 103, 45.5] ]
```

Your program will initialize the list and display the students details, those are poor performer (Secured less than 50% as average mark )

**\*Q9.** This assignment is not mandatory...Login to hackerrank and solve the problem. Open the link, you will be getting the problem description.

Note: Solve this problem by yourself, without taking the help of any tutor.

<https://www.hackerrank.com/challenges/beautiful-days-at-the-movies/problem>

Pradipta Kumar Pattanayak

Department of Computer Science

Silicon Institute of Technology