National University of Computer and Emerging Sciences

Lab Manual 01
Object Oriented Programming

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1.1 Objectives

After performing this lab, students shall be able to:

- ✓ Have an improved understanding of pointers.
- ✓ Access and modify arrays via pointers.

Note: For all the integer or float variables in all the programs, take input value from user.

TASK 1:

Write the following code and observe the output:

```
int x,y;
x=3, y=4;
int * p;
int * q;
p=& x;
q=&y;
cout<< x<<'\t'<<p<<'\t'<<*p<<'\t'<<&p<<'\t'<<&x<<endl;
cout<<y<<'\t'<<q<<'\t'<<*q<<'\t'<<&q<<'\t'<<&y<<endl;
```

TASK 2:

Given two integers x and y, find and print their sum using pointers.

TASK 3:

Write a C++ program that creates a pointer to an integer and print the following:
Square of the integer, cube of the integer, half of the integer

TASK 4:

Write a C++ program that finds and prints the median of following three integers using their pointers.

```
int a=5;
int b=10;
int c=12;
```

TASK 5:

A C++ program where you create an integer array of **size 10**. Your program will add 3 to each element of the array. You have to add to the elements using pointer only. Array subscript notation cannot be used (neither in addition nor while printing resultant array).

TASK 6:

Create a float array **InArr** of size 10 and another float array **ResArr** of size 9. Point a pointer **myptr** to InArr. Now perform the operation ResArr[i] = InArr[i] + InArr[i+1] using pointers. Once this operation is completed, point myptr to ResArr. Print the resultant array using myptr.