National University of Computer and Emerging Sciences



Lab Manual 09

Object Oriented Programming

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## Objectives

After performing this lab, students shall be able to perform:

Operator overloading.

* subscript operator [ ]
* overloading -, + operators as non-member functions

**TASK 1:**

Design a class “Marks” of given driver/ main function and its required member functions and overload subscript operator “[ ]”.

Data member subjects 🡪 integer fixed size array

int main()

{

Marks saif(77,88,99);

//0 represent marks of Data Structure

//1 represent marks of OOP

//2 represent marks of Programming Fundamental

cout<<"Saif Your Obtained Marks in Programming Fundamental is: "<<saif[2]<<endl<<endl;

cout<<"Saif Your Obtained Marks in OOP is: "<<saif[1]<<endl<<endl;

cout<<"Saif Your Obtained Marks in Data Structure is: "<<saif[0]<<endl<<endl;

return 0;

}

**TASK 2:**

Design a class “myArray of given driver/ main function and implement given member functions and overload subscript operator “[ ]”.

class MyArray {

private:

int\* arr;

int size;

public:

MyArray(identify parametr);

Identify-return-type operator[](identify parameter);

Identify-return-type print(identify parameter);

};

int main()

{

int f\_array[] = { 2, 4, 6, 8};

MyArray arr(f\_array, 4);

arr[2] = 6;

arr.print();

arr[3] = 12;

arr[4] = 6;

//exception or not?

return 0;

}

**TASK 3:**

Design a class “Cents” of given driver/ main function and its required member functions and overload subscript operator “ + and -”.

Data member m\_cents 🡪 integer type

int main()

{

Cents cents1(6);

Cents cents2 = cents1 + 2;

cout << "I have " << cents2.getCents() << " cents.\n";

Cents cents3 = cents1 - 3;

cout << "I have " << cents3.getCents() << " cents.\n";

return 0;

}