



SCS 1310 - Object Oriented Programming

Practical 04

Write C++ programs for following tasks.

Take a screenshot that depicting code and result for each question.

Prepare a pdf file containing all the screenshots followed by question number.

Rename the pdf with your index number and submit.

1. Write a C++ program to print the sum of the first n Natural Numbers.
2. Write a C++ program to display the Multiplication table up to 10.
3. Write a C++ program to print half pyramid using '*'.

```
*  
* *  
* * *  
* * * *  
* * * * *
```

4. Write a C++ program to print half pyramid using numbers.

```
1  
1 2  
1 2 3  
1 2 3 4  
1 2 3 4 5
```

C++ Class and Objects

1. Write a C++ program to create a Car class with some attributes (brand, model, year)
2. Write a C++ program to calculate the area and volume of a room. (hint: use “room” as class and its object as “room1”.)

3. Create a class that imitates part of the functionality of the basic data type *int*. Call the class *Int* (note different capitalization). The only data in this class is an *int* variable. Include member functions to initialize an *Int* to 0, to initialize it to an *int* value, to display it (it looks just like an *int*), and to add two *Int* values. Write a program that exercises this class by creating one uninitialized and two initialized *Int* values, adding the two initialized values and placing the response in the uninitialized value, and then displaying this result.