Sukuna Multiple Campus

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Subject: OOP with C++

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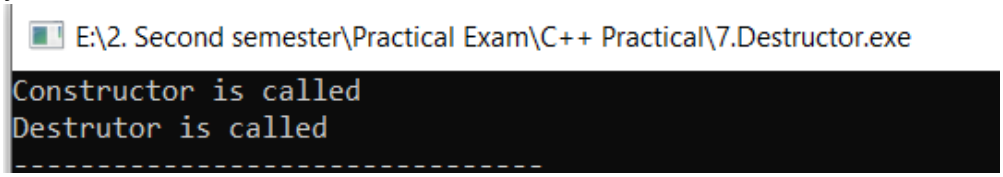
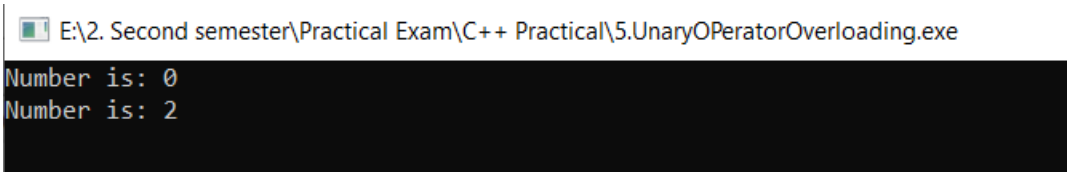
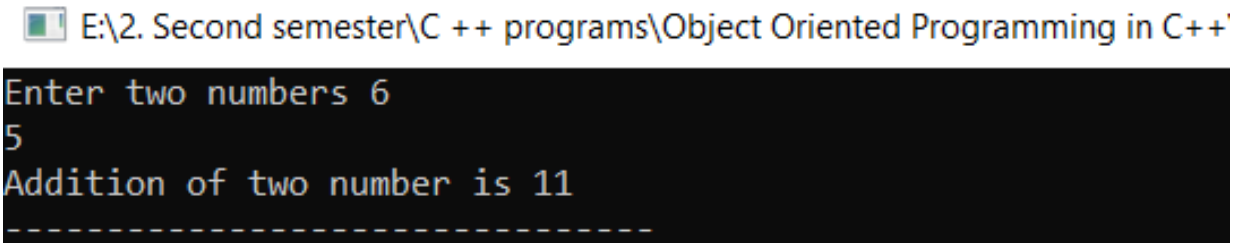
```
//Destructor
#include <iostream>
#include <conio.h>
using namespace std;

class Information{
	public:
		Information(){
			cout<<"Constructor is called ";
		}
		~Information(){
			cout<<endl<<"Destrutor is called ";
		}
};

int main(){
	Information info;
	return 0;
}
```



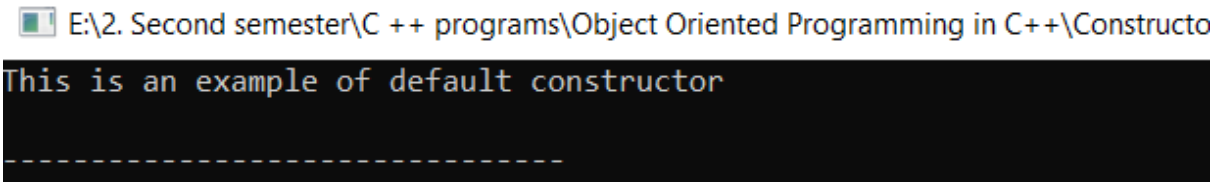
```
//Unary Operator overloading
#include <iostream>
#include <conio.h>
using namespace std;

class Counter{
	int count;
	public:
		Counter(){
			count=0;
		}
		void operator++(){
			++count;
		}
		void getData(){
			cout<<"Number is: "<<count<<endl;
		}
};

int main(){
	Counter count;
	count.getData();
	++count;
	++count;
	count.getData();

}
```



```
//Encapsulation
#include <iostream>
#include <conio.h>

using namespace std;
class Encaps
{
  private:
  int a,b;
  public:
  void set_data()
  {
    cout<<"Enter two numbers ";
    cin>>a>>b;
  }
   void getdata()
  {
    cout<<"Addition of two number is "<<a+b;
  }
};

int main()
{
   Encaps E1;
   E1.set_data();
   E1.getdata();
   return 0;
}
```

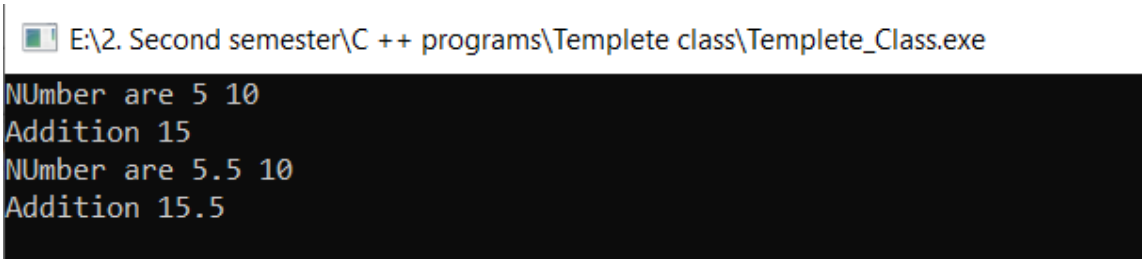


```
// Default Constructor
#include <iostream>
#include <conio.h>

using namespace std;
class DefaultConstructor{

	public:
	DefaultConstructor(){
		cout<<"This is an example of default constructor\n";
	}
};

int main()
{
	DefaultConstructor d1;
	return 0;
}
```

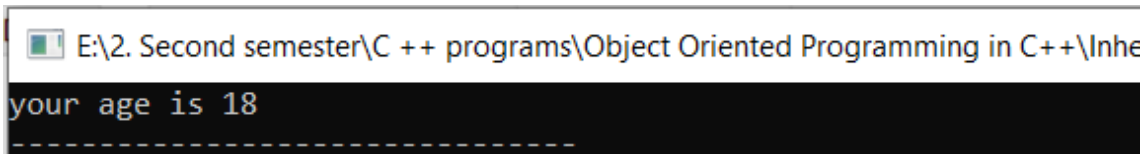


```
//template class
#include <iostream>
#include <conio.h>
using namespace std;
template <class temp>

class Calculator
{
  temp n1,n2;
  public:
  Calculator(temp n1,temp n2)
  {
     this->n1=n1;//this->n1 is above private access specifier member
     this->n2=n2;
  }

  void display()
  {
     cout<<"NUmber are "<<n1<<" "<<n2;
     cout<<endl<<"Addition "<<add()<<endl;

  }

   temp add()
   {
      return n1+n2;
   }

};

int main()
{
   Calculator <int> cal(5,10);
   Calculator <float> f(5.5,10);
   cal.display();
   f.display();
   return 0;
```

}


E:\2. Second semester\C ++ programs\Templete class\Templete_Class.exe
NUmber are 5 10
Addition 15
NUmber are 5.5 10
Addition 15.5

```
//Single level inheritance
#include <iostream>
#include <conio.h>
using namespace std;
class Base_class{
	protected:
		int age;

};
class Child_class: public Base_class{

	public:
		void myage()
		{
			age=18;

			cout<<"your age is "<<age;

		}

};

int main(){

	Child_class ch;
	ch.myage();

	return 0;
}
```



```
//Multiplication of two numbers

#include <iostream>
#include <conio.h>
using namespace std;

class Multiplication{
	int a,b,mul;
	public:
		void setData(){
			cout<<"Enter two numbers ";
			cin>>a>>b;
		}
		void getData(){
			mul=a*b;
			cout<<"Multiplication of "<<a<<" and "<<b<<" is "<<mul;
		}
};

int main(){
	Multiplication multiplication;
	multiplication.setData();
	multiplication.getData();
}
```

E:\2. Second semester\Practical Exam\C++ Practical\4.MultiplicationOftwoNumbers.exe

```
Enter two numbers 5
4
Multiplication of 5 and 4 is 20
```