Sukuna Multiple Campus

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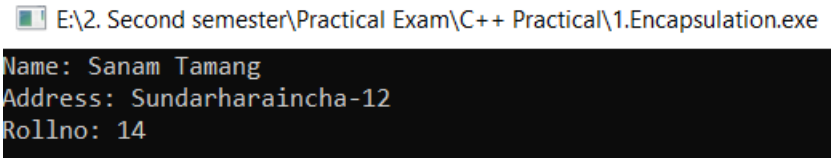
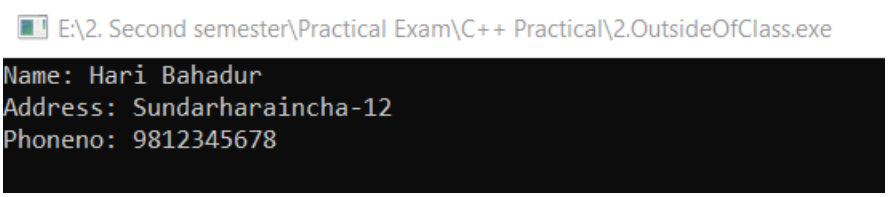
Subject: OOP with C++
Submitted To: Uma Dhungel

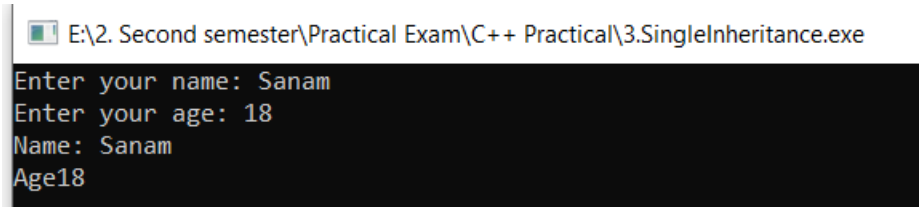
```
//Encapsulation
#include <iostream>
#include <conio.h>
using namespace std;

class StudentInfo{
	private:
		string name,address;
		int rollno;
	public:
		void setData(string name,string address,int rollno){
		  this->name=name;
		  this->address=address;
		  this->rollno=rollno;
		}
		void getData(){
		   cout<<"Name: "<<name<<endl;
		   cout<<"Address: "<<address<<endl;
		   cout<<"Rollno: "<<rollno<<endl;
		}
};

int main(){
	StudentInfo student1;
	student1.setData("Sanam Tamang","Sundarharaincha-12",14);
	student1.getData();
	return 0;
}
```



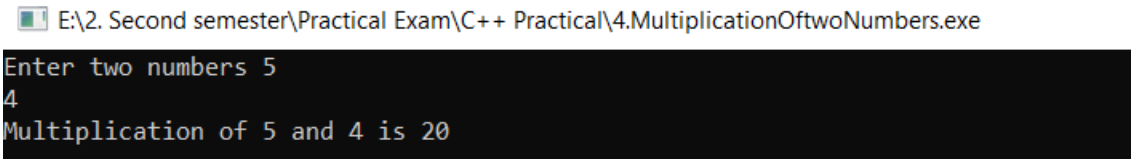
```
//Outside of class
#include <iostream>
#include <conio.h>
using namespace std;

class WorkersInfo{
        string name,address;
    string phoneno;
        public:
                void setData(string name,string address,string phoneno){
                        this->name=name;
                        this->address=address;
                        this->phoneno=phoneno;
                }
                string getName();
                string getAddress();
                string getPhoneno();

};

   string WorkersInfo::getName(){
                return name;
                }
        string WorkersInfo::getAddress(){
                return address;
                }
        string WorkersInfo::getPhoneno(){
                return phoneno;
                }

int main(){
        WorkersInfo worker1;
        worker1.setData("Hari Bahadur","Sundarharaincha-12","9812345678");
        cout<<"Name: "<<worker1.getName()<<endl;
        cout<<"Address: "<<worker1.getAddress()<<endl;
        cout<<"Phoneno: "<<worker1.getPhoneno()<<endl;

}
```



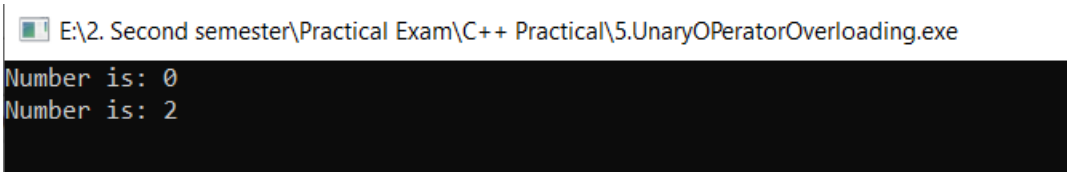
```
//Single Inheritance
#include <iostream>
#include <conio.h>
using namespace std;

class Information{
	protected:
	string name;
	int age;
};

class Worker:public Information{
	public:
		void setData(){
			cout<<"Enter your name: ";
			cin>>name;
			cout<<"Enter your age: ";
			cin>>age;
		}
		void getData(){
			cout<<"Name: "<<name<<endl;
			cout<<"Age" <<age;
		}
};

int main(){
	Worker worker;
	worker.setData();
	worker.getData();
}
```



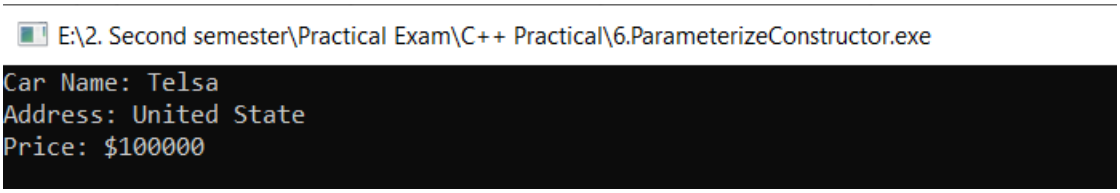
```
//Multiplication of two numbers

#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();
}
```



```
//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();

}
```



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

class Car{
	string nameOfCar,address;
	double price;
	public:
		Car(string nameOfCar,string address,double price){
			this->nameOfCar=nameOfCar;
			this->address=address;
			this->price=price;
		}
		void getData(){
			cout<<"Car Name: "<<nameOfCar<<endl;
			cout<<"Address: "<<address<<endl;
			cout<<"Price: $"<<price<<endl;
		}
};

int main(){
	Car car("Telsa","United State",100000);
	car.getData();
	return 0;
}
```



```
//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;
}
```