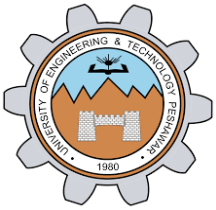

OOP LAB

Lab Report No. 02

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Section: B

Batch: 18

Department: CSE

Date: 06-10-2017

University of Engineering and Technology Peshawar

Home-Task

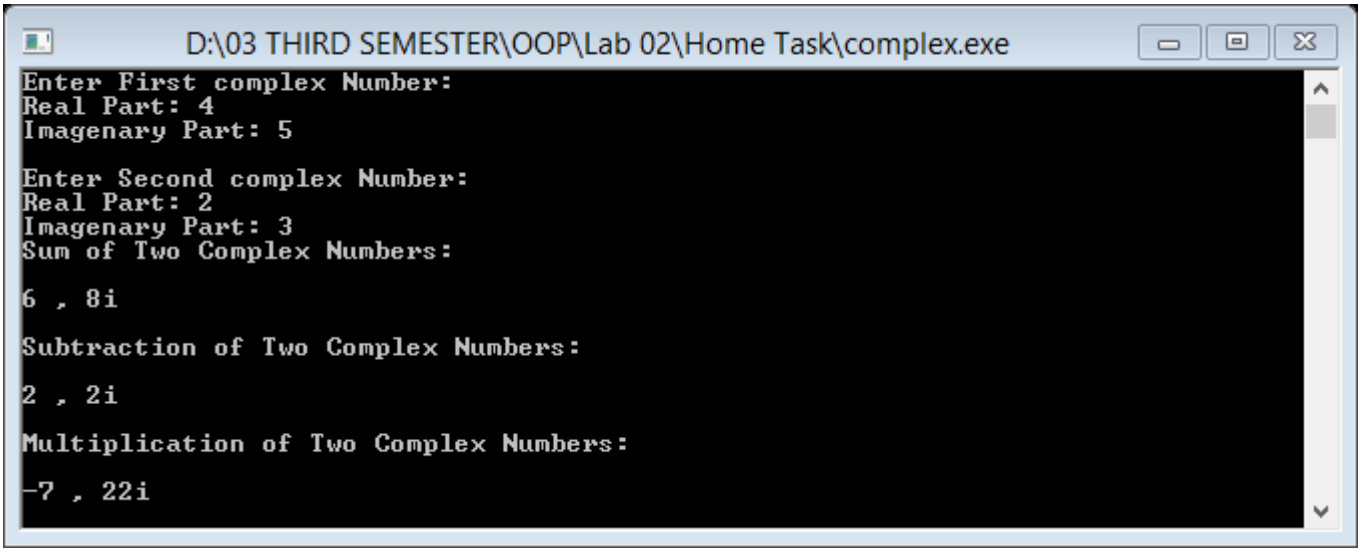
Task 01

CODE:

```
#include<iostream>
using namespace std;
class complex
{
	private:
		float real,imag;
	public:
		complex()
		{
			real=0;
			imag=0;
		}
		complex(float r,float i)
		{
			real=r;
			imag=i;
		}
		// Using Friend Function:
		void sum(complex c1,complex c2)
		{
			real = c1.real + c2.real;
			imag = c1.imag + c2.imag;
		}
		void sub(complex c1,complex c2)
		{
			real = c1.real - c2.real;
			imag = c1.imag - c2.imag;
		}
		void multiply(complex c1,complex c2)
		{
			real=c1.real*c2.real - c1.imag*c2.imag;
			imag=c1.real*c2.imag + c1.imag*c2.real;
		}
		void show()
		{
			cout<<endl<<real<<" , "<<imag<<"i"<<endl;
		}
};

int main()
{
	float real,imag;
	cout<<"Enter First complex Number: "<<endl;
	cout<<"Real Part: ";
	cin>>real;
	cout<<"Imagenary Part: ";
	cin>>imag;
	complex c1(real,imag);
	cout<<endl<<"Enter Second complex Number: "<<endl;
	cout<<"Real Part: ";
	cin>>real;
	cout<<"Imagenary Part: ";
	cin>>imag;
```

```
        complex c2(real,imag),c3;
        cout<<"Sum of Two Complex Numbers: "<<endl;
        c3.sum(c1,c2);
        c3.show();

        cout<<endl;

        cout<<"Subtraction of Two Complex Numbers: "<<endl;
        c3.sub(c1,c2);
        c3.show();

        cout<<endl;

        cout<<"Multiplication of Two Complex Numbers: "<<endl;
        c3.multiply(c1,c2);
        c3.show();
        cout<<endl;
        return 0;
}
```

RUN



Task 02

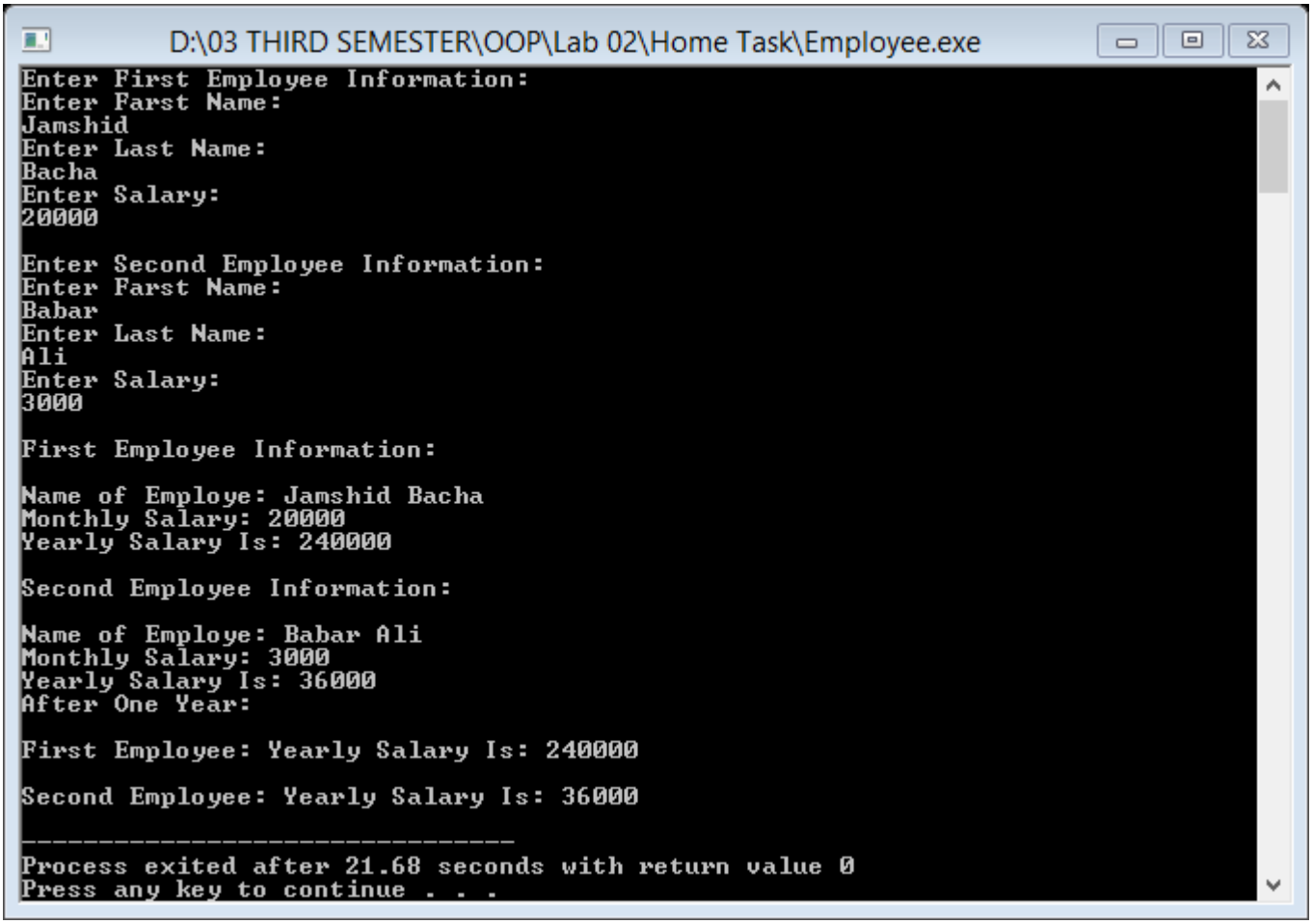
CODE:

```
#include<iostream>
#include<string>
using namespace std;
class Employee
{
        private:
                string F_name,L_name;
                double salary;
        public:
                Employee()
                {
                        F_name="";
                        L_name="";
```

```
                salary=0.0;
        }
        void set_Data()
        {
                cout<<"Enter Farst Name: "<<endl;
                cin>>F_name;
                cout<<"Enter Last Name: "<<endl;
                cin>>L_name;
                cout<<"Enter Salary: "<<endl;
                cin>>salary;
                if(salary<0)
                {
                        salary=0.0;
                }
        }
        void get_Data()
        {
                cout<<endl<<"Name of Employe: "<<F_name<<" "<<L_name<<endl;
                cout<<"Monthly Salary: "<<salary<<endl;
        }
        void raise_Salary()
        {
                salary+=salary/10;
        }
        void Year_Salary()
        {
                cout<<"Yearly Salary Is: "<<salary*12<<endl;
        }

};

int main()
{
        Employee employee1,employee2;

        cout<<"Enter First Employee Information: "<<endl;
        employee1.set_Data();


        cout<<endl<<"Enter Second Employee Information: "<<endl;
        employee2.set_Data();

        cout<<endl<<"First Employee Information: "<<endl;
        employee1.get_Data();
        employee1.Year_Salary();
        cout<<endl<<"Second Employee Information: "<<endl;
        employee2.get_Data();
        employee2.Year_Salary();
```

```
	cout<<"After One Year: "<<endl;
	cout<<endl<<"First Employee: ";
	employee1.Year_Salary();
	cout<<endl<<"Second Employee: ";
	employee2.Year_Salary();
	return 0;
}
```

RUN:



Task 03

CODE:

```
#include<iostream>
using namespace std;
class Date
{
	private:
		int day,month,year;
	public:
		Date()
		{
			day=0;
			month=0;
```

```
		year=0;
	}
	void setData(int d,int m,int y)
	{
		day=d;
		month=m;
		year=y;
	}
	int getday()
	{
		return day;
	}
	int getmonth()
	{
		return month;
	}
	int getyear()
	{
		return year;
	}
	void show()
	{
		cout<<endl<<"Date: "<<day<<" / "<<month<<" / "<<year<<endl;
	}
};

int main()
{
	Date obj;
	int d,m,y;
	cout<<"Enter Day: ";
	cin>>d;
	cout<<"Enter Month: ";
	cin>>m;
	cout<<"Enter Year: ";
	cin>>y;
	obj.setData(d,m,y);
	obj.show();
	return 0;
}
```

RUN: