

OOP LAB

Lab Report No. 02

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Date: 06-10-2017

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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;

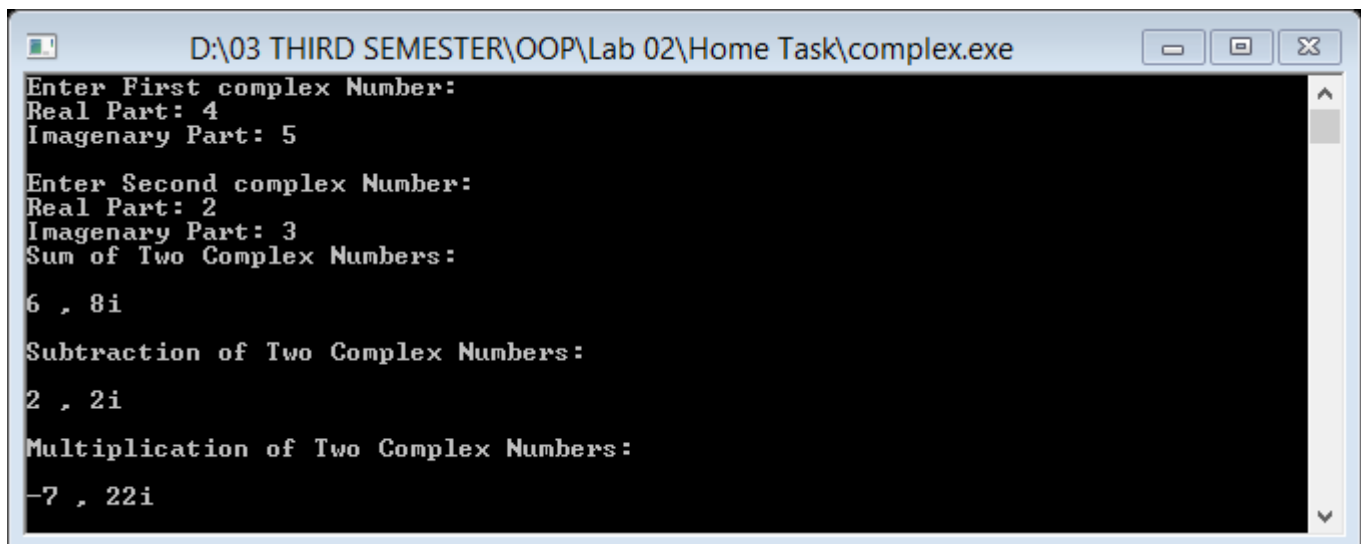
cout<<"Subtraction of Two Complex Numbers: "<<endl;
c3.sub(c1,c2);
c3.show();

cout<<endl;

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

```

RUN



```

D:\03 THIRD SEMESTER\OOP\Lab 02\Home Task\complex.exe
Enter First complex Number:
Real Part: 4
Imaginary Part: 5
Enter Second complex Number:
Real Part: 2
Imaginary Part: 3
Sum of Two Complex Numbers:
6 , 8i
Subtraction of Two Complex Numbers:
2 , 2i
Multiplication of Two Complex Numbers:
-7 , 22i

```

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();

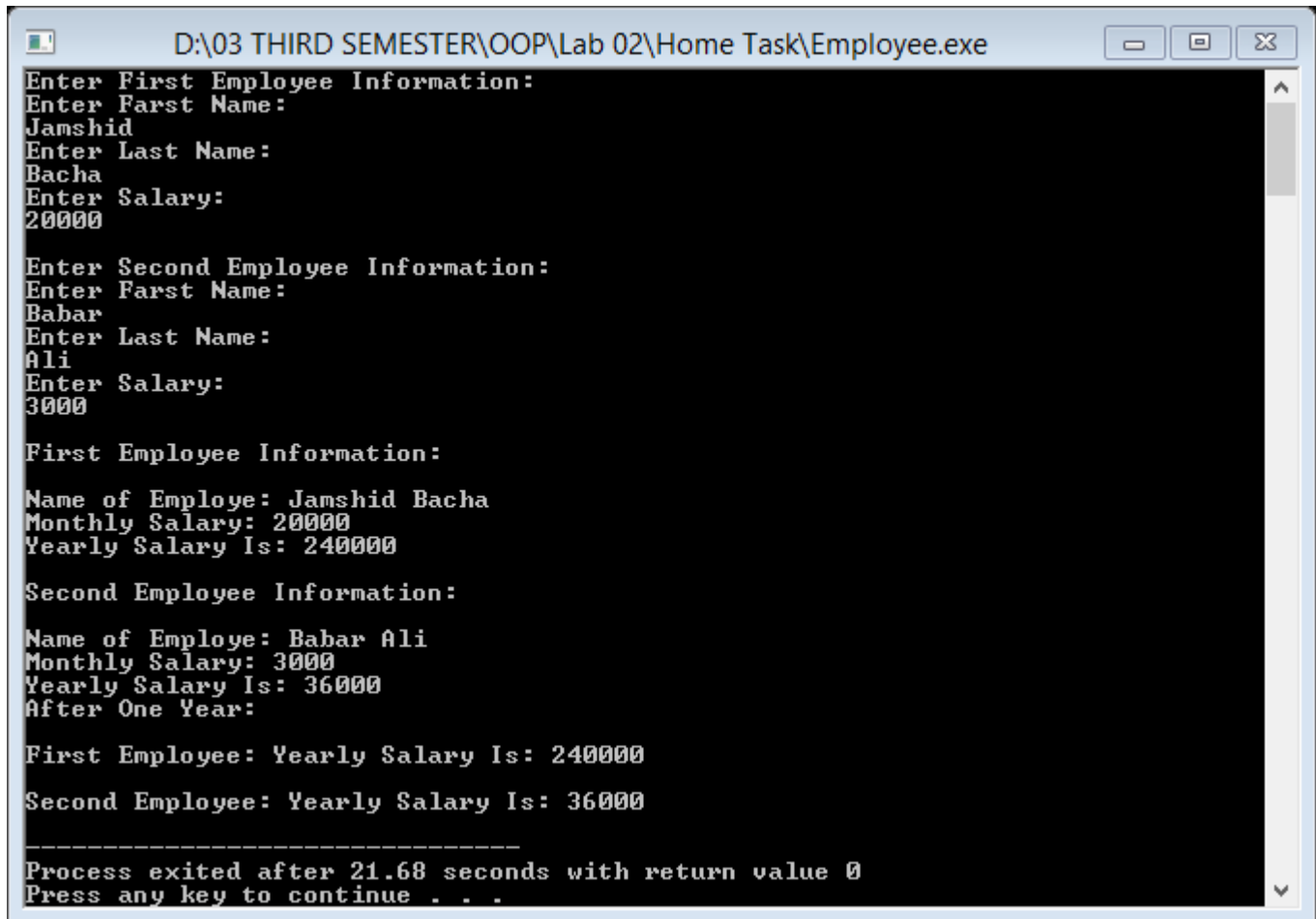
```

```

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

```

RUN:



```

D:\03 THIRD SEMESTER\OOP\Lab 02\Home Task\Employee.exe
Enter First Employee Information:
Enter Farst Name:
Jamshid
Enter Last Name:
Bacha
Enter Salary:
20000

Enter Second Employee Information:
Enter Farst Name:
Babar
Enter Last Name:
Ali
Enter Salary:
3000

First Employee Information:
Name of Employee: Jamshid Bacha
Monthly Salary: 20000
Yearly Salary Is: 240000

Second Employee Information:
Name of Employee: Babar Ali
Monthly Salary: 3000
Yearly Salary Is: 36000
After One Year:

First Employee: Yearly Salary Is: 240000
Second Employee: Yearly Salary Is: 36000

-----
Process exited after 21.68 seconds with return value 0
Press any key to continue . . .

```

Task 03

CODE:

```

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

```

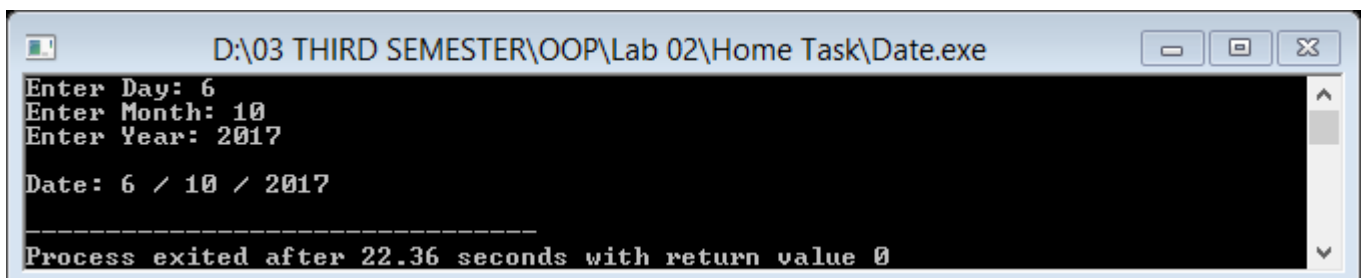
```

        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:



```

D:\03 THIRD SEMESTER\OOP\Lab 02\Home Task\Date.exe
Enter Day: 6
Enter Month: 10
Enter Year: 2017

Date: 6 / 10 / 2017

-----
Process exited after 22.36 seconds with return value 0

```