

Name:Amay Dilip Mapari
Roll No.:21154
Class:SE1
Batch:G1
Assignment No.:1

Code:

```
#include<iostream>
```

```
using namespace std;
```

```
class Complex{
```

```
    float real,img;
```

```
    public:
```

```
    Complex(){
```

```
        real=0.0;img=0.0;
```

```
    }
```

```
    Complex operator+(Complex c){
```

```
        Complex temp;
```

```
        temp.real=c.real+real;
```

```
        temp.img=c.img+img;
```

```
        return temp;
```

```
    }
```

```
    Complex operator*(Complex c){
```

```
Complex temp;  
  
temp.real=(real * c.real ) - (img*c.img);  
  
temp.img=(real*c.img) + (img*c.real);  
  
return temp;  
  
}
```

```
friend istream &operator>>(istream &in,Complex &a){  
  
    cout<<"Enter the real part"<<endl;  
  
    in>>a.real;  
  
    cout<<"Enter img part "<<endl;  
  
    in>>a.img;  
  
    return in;  
  
}
```

```
friend ostream &operator<<(ostream &out,Complex &a){  
  
    out<<a.real<<" + "<<a.img<<"i"<<endl;  
  
    return out;  
  
}
```

```
};
```

```
int main(){
```

```
Complex c1,c2,c3,c4;
```

```
cin>>c1;
```

```

cin>>c2;

int choice;

cout<<"Enter choice:-"<<endl;

cout<<"Enter 1 for addition\nEnter 2 for multiplication"<<endl;

cin>>choice;

switch (choice)
{
case 1:

c3=c1+c2;

cout<<"Addition of two numbers is "<<c3<<endl;

break;


case 2:

c4=c1*c2;

cout<<"Multiplication n of two numbers is "<<c4<<endl;

break;

default:

cout<<"Enter other choice"<<endl;

break;

}

return 0;

}

```

Output:

```
Input
Enter the real part
3
Enter img part
4
Enter the real part
4
Enter img part
3
Enter choice:-
Enter 1 for addition
Enter 2 for multiplication
2
Multiplication n of two numbers is 0 + 25i

...Program finished with exit code 0
Press ENTER to exit console.
```