Arundarasi Rajendran
PRN:18070122081
Batch CS4

Unary Operator Overloading

```
#include <iostream>
using namespace std;
class Complex
{
   public:
   int real, imag;
   Complex(int r, int i)
   {
      this->real = r;
      this->imag = i;
   }
   void operator-()
   {
      real--;
      imag--;
      cout << "\nComplex number (Decrement): " << real << "+" << imag << "i";
   }
};
int main()
{
   Complex c1(8, 9);
   Complex c2(6,3);
   -c1;
   -c2;

   return 0;
}
```

Output

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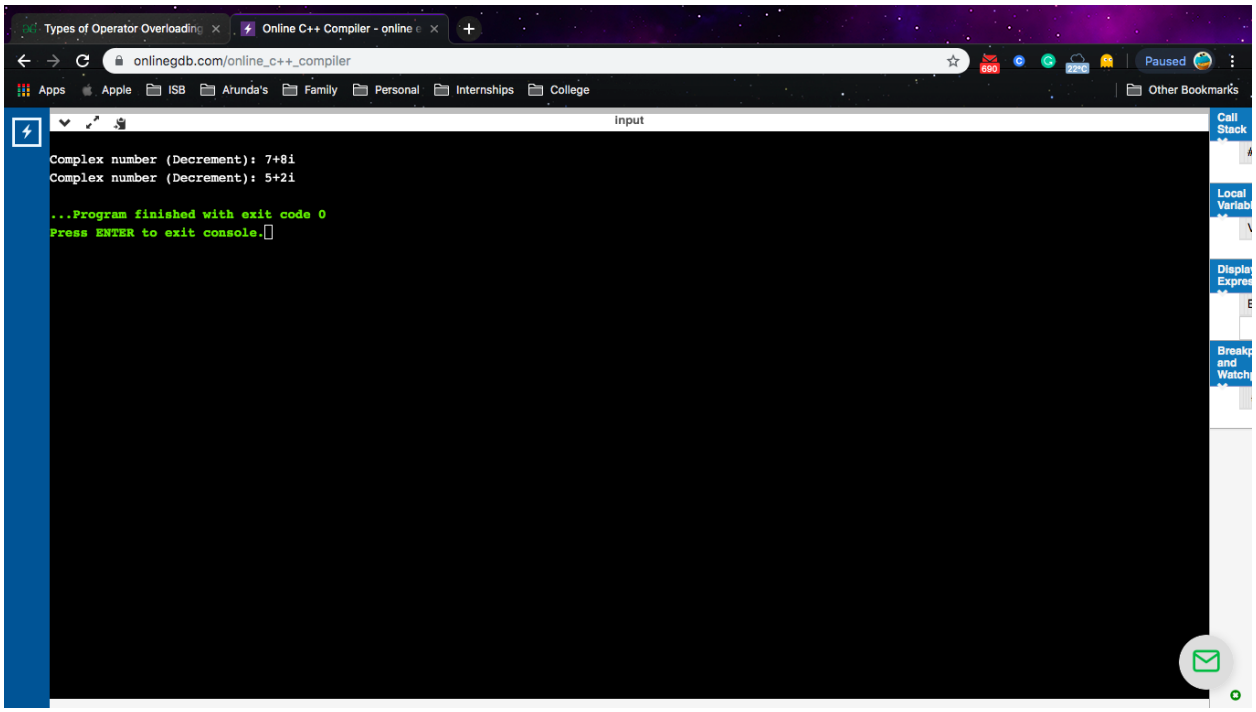

Binary Operator Overloading

```
#include<iostream>
using namespace std;
class Weight
{
	public:
	int kilograms,grams;
	Weight()
	{
		this->kilograms=0;
		this->grams=0;
	}
	Weight(int kg,int g)
	{
		this->kilograms=kg;
		this->grams=g;
	}
	void printData()
		{
			cout<<"Kg:"<<kilograms<<"g:"<<grams<<endl;
```

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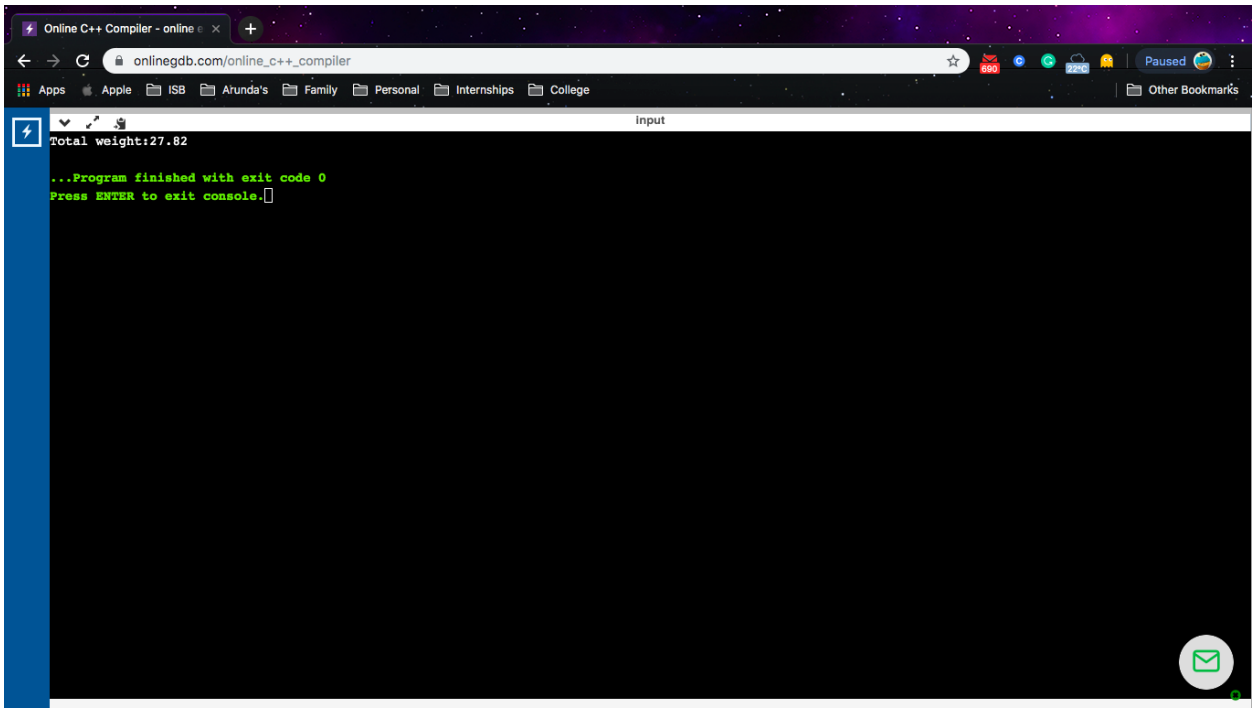
```
        }
    Weight operator+(Weight &w2)
    {
        Weight w3;
        w3.kilograms=this->kilograms+w2.kilograms;
        w3.grams=this->grams+w2.grams;
        return w3;
    }
};
int main()
{
    Weight w1(8,15);
    Weight w2(19,67);
    Weight w3;
    w3=w1+w2;
    cout<<"Total weight:"<<w3.kilograms<<"."<<w3.grams;
}
```

Output



Friend Function Overriding

```
#include <iostream>
```

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```
using namespace std;
class Number
{
   private:
   int a;
   public:
   void getNum(int x);
   friend void printNum(Number no);
};
void Number::getNum(int x)
{
   a=x;
}
void printNum(Number no)
{
   cout << "Value of number: " << no.a;
}
int main()
{
   Number nObj,nObj1;
   nObj.getNum(1000);
   printNum(nObj);
   cout<<"\n";
   nObj1.getNum(500);
   printNum(nObj1);
   return 0;
}
```

Output

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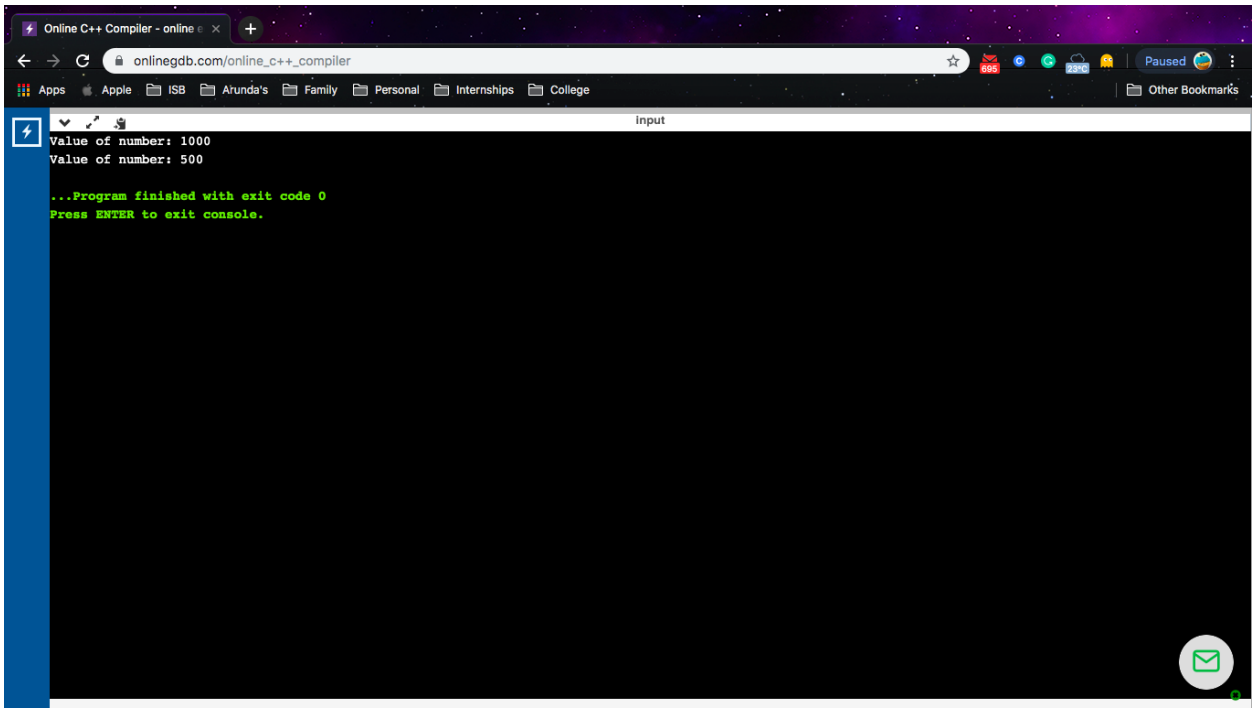
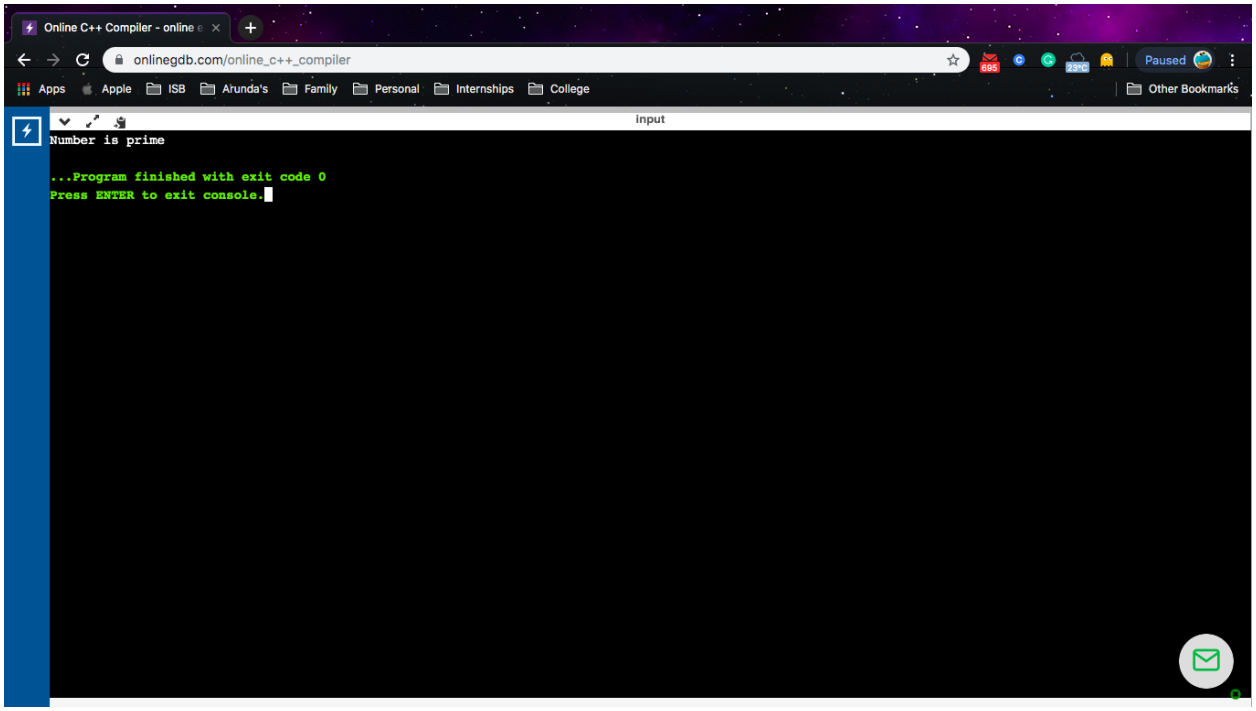


Member Function Overriding

```
#include<iostream>
using namespace std;
class Number
{
   public:
   void show()
   {
      cout<<"Number";
   }
};
class Prime: public Number
{
   public:
   void show()
   {
      cout<<"Number is prime";
   }
};
int main(void)
{
```

```
    Prime p = Prime();
    p.show();
    return 0;
}
```

Output



Member Function Overloading

```
#include<iostream>
using namespace std;
int sub(int x,int y)
{
    cout<<x-y;
}
int sub(int x,int y,int z)
{
    cout<<x+y+z;
}
int main()
{
    sub(8,5);
```

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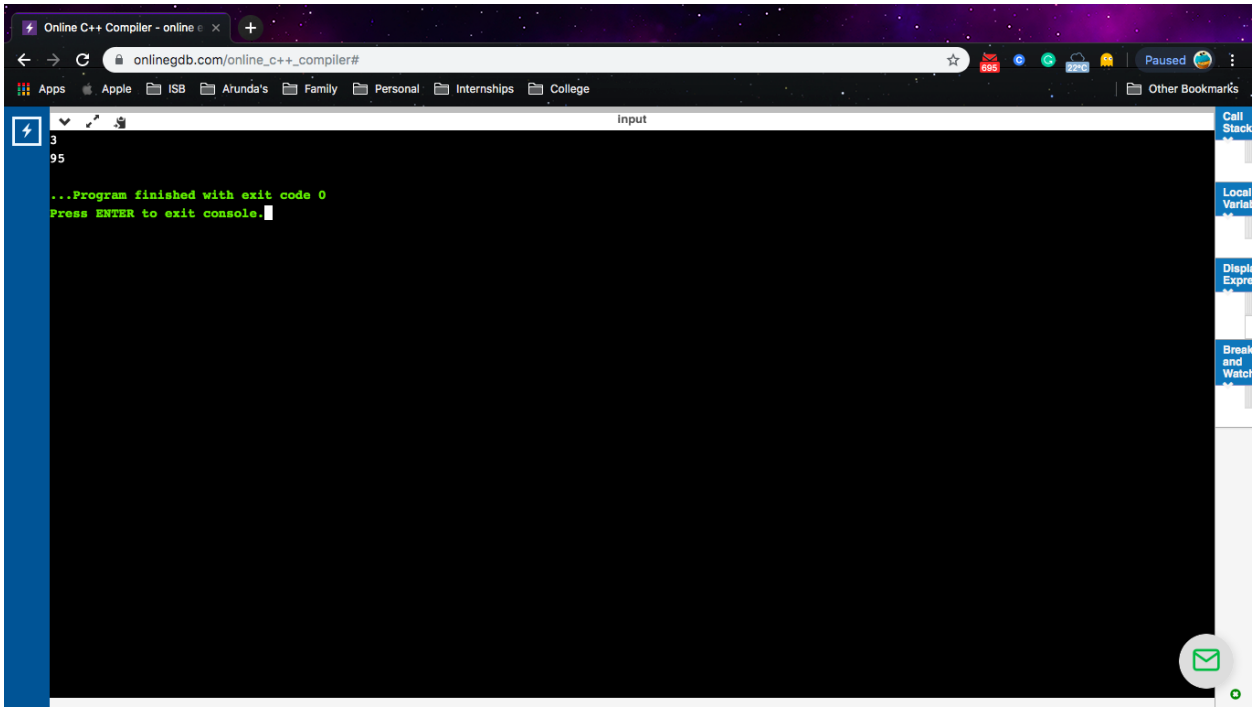
```
    cout<<"\n";
    sub(10,15,70);
}
```

Output



Friend function overriding

```
#include<iostream>
using namespace std;
class complex
{
    float real,imag;
    public:
    complex()
    {
        real=imag=0;
    }
    complex(float r,float i)
    {
        real = r;
        imag =i;
```

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```
    }
    friend complex operator - (complex c)
    {
        c.real=-c.real;
        c.imag=-c.imag;
        return c;
    }
    void display()
    {
        cout<<"\nReal:"<<real;
        cout<<"\nImag:"<<imag;
    }
};
int main()
{
    complex c1(1,2),c2;
    c1.display;
    c2=-c1;
    cout<<"\nAfter negation\n";
    c2.display();
}
```