**EXPERIMENT NO : 6** **DATE: 12/09/23**

## OPERATOR OVERLOADING

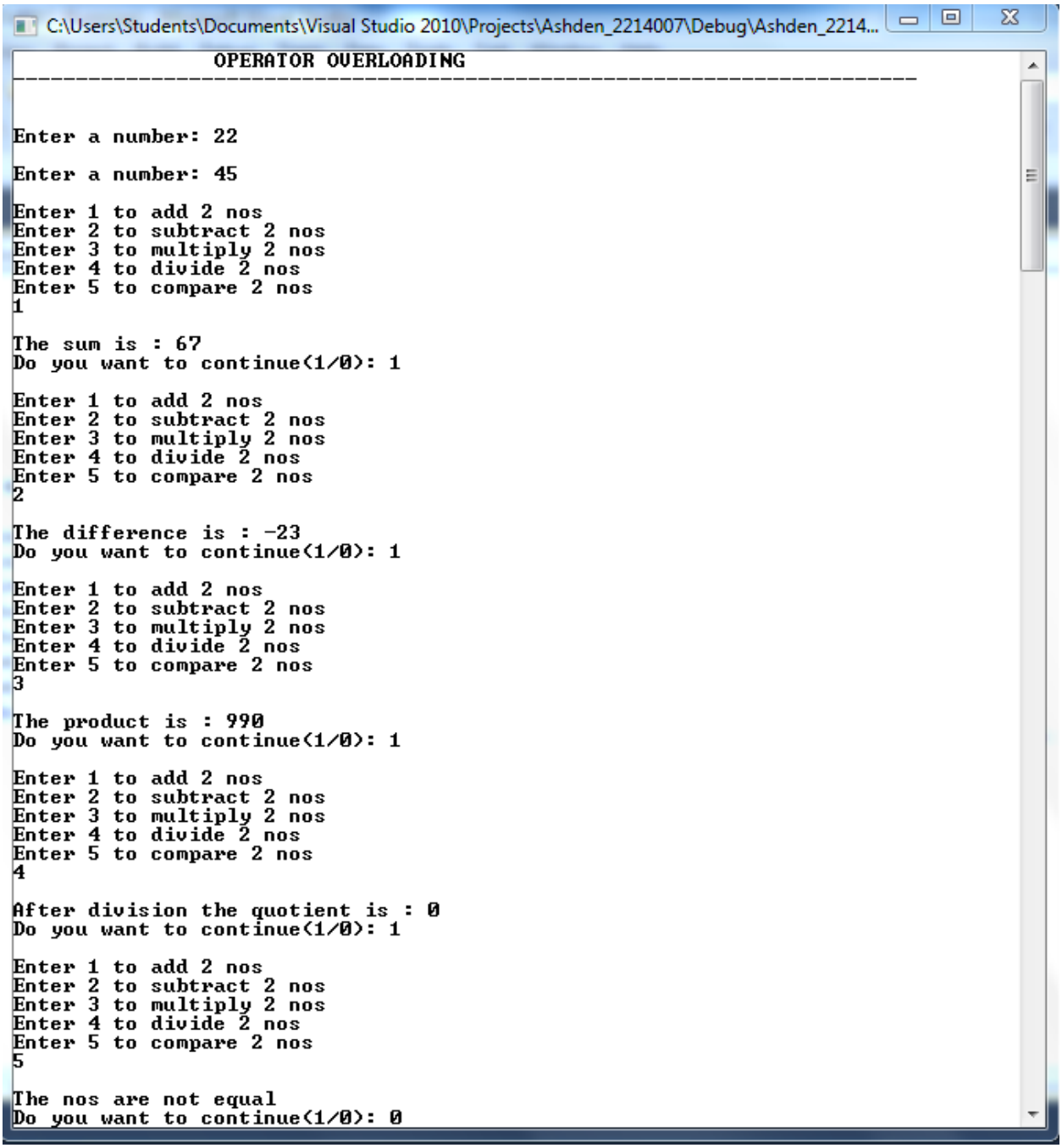
**A] Write a Menu-driven C++ program to overload the Binary operators.**

Code:

```
#include <iostream>
#include <conio.h>
using namespace std;
class Overload
{
	int a;

public:
	void readdetails()
	{
		cout<<"\nEnter a number: ";
		cin>>a;
	}
	void operator+(Overload &obj2)
		{
			Overload C;
			cout<<"\nThe sum is : "<<a+obj2.a;
		}
	void operator-(Overload &obj2)
		{
			cout<<"\nThe difference is : "<<a-obj2.a;
		}
	void operator*(Overload &obj2)
		{

			cout<<"\nThe product is : "<<a*obj2.a;
		}
	void operator/(Overload &obj2)
		{
			cout<<"\nAfter division the quotient is : "<<a/obj2.a;
		}
	void operator==(Overload &obj2)
		{
			if(a==obj2.a)
			{
				cout<<"\nThe nos are equal";
			}
			else
			{
				cout<<"\nThe nos are not equal";
			}
		}
};

void main()
{
	cout<<"\t\tOPERATOR OVERLOADING\n";
	cout<<"--------------------------------------------------------------------------------
\n\n";
	int o,choice;
	Overload obj1;
	Overload obj2;
	obj1.readdetails();
	obj2.readdetails();
```

```
	do{
		cout<<"\nEnter 1 to add 2 nos\nEnter 2 to subtract 2 nos\nEnter 3 to
multiply 2 nos\nEnter 4 to divide 2 nos\nEnter 5 to compare 2 nos\n";
		cin>>o;
		switch(o)
		{
		case 1:
		obj1+obj2;
		break;

		case 2:
			obj1-obj2;
			break;

		case 3:
			obj1*obj2;
			break;
		case 4:
			obj1/obj2;
			break;
		case 5:
			obj1==obj2;
			break;
		}
		cout<<"\nDo you want to continue(1/0): ";
		cin>>choice;
	}
	while (choice==1);
	getch();
}
```

Output:


C:\Users\Students\Documents\Visual Studio 2010\Projects\Ashden_2214007\Debug\Ashden_2214...
OPERATOR OVERLOADING
Enter a number: 22
Enter a number: 45
Enter 1 to add 2 nos
Enter 2 to subtract 2 nos
Enter 3 to multiply 2 nos
Enter 4 to divide 2 nos
Enter 5 to compare 2 nos
1
The sum is : 67
Do you want to continue(1/0): 1
Enter 1 to add 2 nos
Enter 2 to subtract 2 nos
Enter 3 to multiply 2 nos
Enter 4 to divide 2 nos
Enter 5 to compare 2 nos
2
The difference is : -23
Do you want to continue(1/0): 1
Enter 1 to add 2 nos
Enter 2 to subtract 2 nos
Enter 3 to multiply 2 nos
Enter 4 to divide 2 nos
Enter 5 to compare 2 nos
3
The product is : 990
Do you want to continue(1/0): 1
Enter 1 to add 2 nos
Enter 2 to subtract 2 nos
Enter 3 to multiply 2 nos
Enter 4 to divide 2 nos
Enter 5 to compare 2 nos
4
After division the quotient is : 0
Do you want to continue(1/0): 1
Enter 1 to add 2 nos
Enter 2 to subtract 2 nos
Enter 3 to multiply 2 nos
Enter 4 to divide 2 nos
Enter 5 to compare 2 nos
5
The nos are not equal
Do you want to continue(1/0): 0

**B] Write a C++ program to understand overloading of unary prefix & postfix operator to perform increment and decrement operation on Complex objects.**

**Code:**

```
#include <iostream>
#include <conio.h>
using namespace std;
class Overload
{
	int a;

public:
	void readdetails()
	{
		cout<<"\nEnter a number: ";
		cin>>a;
	}
	void operator++()
		{
			Overload C;
			cout<<"\nAfter preincrement the number is  : "<<++a;
		}
	void operator++(int)
		{
			Overload C;
			cout<<"\nAfter postincrement the number is  : "<<a++;
		}
	void operator--()
		{
			Overload C;
			cout<<"\nAfter predecrement the number is  : "<<--a;
		}
	void operator--(int)
		{
			Overload C;
			cout<<"\nAfter postdecrement the number is  : "<<a--;
		}
};

void main()
{
	cout<<"\t\tOPERATOR OVERLOADING\n";
	cout<<"--------------------------------------------------------------------------------
\n\n";
	int o,choice;
	Overload obj1;
	do{
		cout<<"\nEnter 1 to preincrement \nEnter 2 to postincrement\nEnter 3 to
predecrement\nEnter 4 to postdecrement\n";
		cin>>o;
		switch(o)
		{
		case 1:
			obj1.readdetails();
			++obj1;
			break;

		case 2:
			obj1.readdetails();
			obj1++;
```

```
                        break;

                case 3:
                        obj1.readdetails();
                        --obj1;
                        break;
                case 4:
                        obj1.readdetails();
                        obj1--;
                        break;
                default :
                        cout<<"\nWrong choice";
                        break;

                }
                cout<<"\nDo you want to continue(1/0): ";
                cin>>choice;
        }
        while (choice==1);
        getch();
}
```

**Output:**