Lab – 7

Operator overloading problems

1. Create a class Time with three private variables int h,m,s; Create a function to overload '+' operator to add two time variables.

    ```
    int main(){
        Time t1(5,15,34),t2(9,53,58),t3;
        t3 = t1 + t2;  t3.show();
    }
    ```

2. Define a class STRING and overload = = to compare two strings and + operator for concatenation of two strings.

3. Write a program in C++ to create a class matrix and overload * operator using friend function to multiply two matrices.

4. Overload '[]' to check array index out of bounds problem at run time.

5. Overload '()' to input arbitrary number of input arguments for an object.

6. Write a program in C++ to overload input operator (>>) and output operator (<<).

7. Write a program to convert basic data type (float) to user defined data type (object).

    ```
    class Test {
    private: //….
    public:
    Test ( data_type) { // conversion code }
    };
    ```

8. Write a program to convert UDT to basic data type (float)

    ```
    class Test{
     public:
    operator data_type() { //Conversion code }
    };
    ```

9. How will you convert one UDT to another UDT. For example conversion of polar to cartesian system.

    ```
    Polar p(10,5);
    Cartesian c = p;
    c.show();
    ```