Assignment 12

Laboratory 7

Operator Overloading

Program 3

```
#include<iostream>
#include<string.h>
using namespace std;
class Addstring{
   public:   char str[100];
   Addstring(){}
   Addstring(char str[]){       strcpy(this->str,str);   }
   Addstring operator+(Addstring& s2){       Addstring s3;
        strcat(this->str,s2.str);       strcat(s3.str,this->str);
        return s3;   }  };
int main(){
   char str1[]="My ";   char str2[]="name is Shyam Tiwari";
   Addstring a1(str1);   Addstring a2(str2);   Addstring a3;
   a3=a1+a2;   cout<<"Concatenation of the string are : "<<a3.str;
}
```

```
shyam@shyam-HP-Laptop-15-da0xxx:~/Desktop/oopLAB/laboratory7/question$ g++ 3.cpp -o 1
shyam@shyam-HP-Laptop-15-da0xxx:~/Desktop/oopLAB/laboratory7/question$ ./1
Concatenation of the string are : My name is Shyam Tiwarishyam@shyam-HP-Laptop-15-da0xxx:~/Desktop/oopLAB
/laboratory7/question$
```

Program 4

```
#include<iostream>
using namespace std;
class Time{   int hrs;   int mins;
   public:   Time(){ hrs = mins =0;}   Time(int h,int m){hrs=h;mins=m;}
   Time(int t){ hrs= t/60;mins=t%60;}   void display(){
        cout<<hrs<<" Hrs "<<mins << " Mins";   }    };
int main(){
   Time t1;   int duration =327;   t1=duration;
   cout<<"\n Duration: ";   t1.display();
}
```

```
shyam@shyam-HP-Laptop-15-da0xxx:~/Desktop/oopLAB/laboratory7/question$ g++ 4.cpp -o 1
shyam@shyam-HP-Laptop-15-da0xxx:~/Desktop/oopLAB/laboratory7/question$ ./1

 Duration: 5 Hrs 27 Minsshyam@shyam-HP-Laptop-15-da0xxx:~/Desktop/oopLAB/laboratory7/question$
```

Program 5

```cpp
#include<iostream>
using namespace std;
int main(){
   float farenheit,celcius;   int choice;
   cout<<"Press 1: farenheit to celcius"<<endl;
   cout<<"Press 2: celcius to farenheit"<<endl;
   cin>>choice;
   if(choice==1){
        cout<<"Enter the farenheit value "<<endl;
        cin>>farenheit;
        celcius=(farenheit-32)/1.8;
        cout<<"It is "<<celcius <<"degree celcius"<<endl;
   }
   if(choice==2){
        cout<<"Enter the farenheit value "<<endl;       cin>>farenheit;
        farenheit=(celcius*1.8)+32;
        cout<<"It is "<<farenheit <<"degree farenheit"<<endl;
   }
   else{       cout<<"Wrong Input\n";    }
}
```

```
shyam@shyam-HP-Laptop-15-da0xxx:~/Desktop/oopLAB/laboratory7/question$ g++ 5.cpp -o 1
shyam@shyam-HP-Laptop-15-da0xxx:~/Desktop/oopLAB/laboratory7/question$ ./1
Press 1: farenheit to celcius
Press 2: celcius to farenheit
1
Enter the farenheit value
23
It is -5 degree celcius
shyam@shyam-HP-Laptop-15-da0xxx:~/Desktop/oopLAB/laboratory7/question$
```

Program 6

```cpp
#include<iostream>
using namespace std;
class cv{
   private:   float x;   public:   void setData(int a){   x=a;   }
   void getData(){  cout<<"X = "<<x;   }
   cv operator +(cv c){   cv temp;  temp.x=x+c.x;   return temp;   }
    cv operator *(cv c){  cv temp;  temp.x=x*c.x;  return temp;   };
   int main(){  int temp;  cv c1,c2,c3,c4;  c1.setData(14);
        c2.setData(17);
        cout<<"\n After addition of two objects ";  c3=c1+c2;
        c3.getData();
        cout<<"\n After multiplication of two objects ";
        c4=c1*c2;  c4.getData(); cout<<endl;
   }
```

```
shyam@shyam-HP-Laptop-15-da0xxx:~/Desktop/oopLAB/laboratory7/question$ g++ 6.cpp -o 1
shyam@shyam-HP-Laptop-15-da0xxx:~/Desktop/oopLAB/laboratory7/question$ ./1

 After addition of two objects X 31
 After multiplication of two objects X 238
shyam@shyam-HP-Laptop-15-da0xxx:~/Desktop/oopLAB/laboratory7/question$
```

Program 12

```
#include<iostream>
using namespace std;
class conversion{
   int _integer;
   double _value;
   public:
   conversion(int val){
        _integer=val;
   }
   conversion(double _val){
        _value=_val;
   }
   operator int(){
        int data=_integer;
        return data;
   }
   operator double(){
        double _d=_value;
        return _d;
   }
};
int main(){
   conversion obj1(10),obj2(105.3);
   int i= obj1;
   double d=obj2;
   cout<<"\n After the conversion integer value is "<<i;
   cout<<"\n double value is "<<d<<endl;
}
```

```
shyam@shyam-HP-Laptop-15-da0xxx:~/Desktop/oopLAB/laboratory7/question$ ./1

 After the conversion integer value is 10
 double value is 105.3
shyam@shyam-HP-Laptop-15-da0xxx:~/Desktop/oopLAB/laboratory7/question$
```