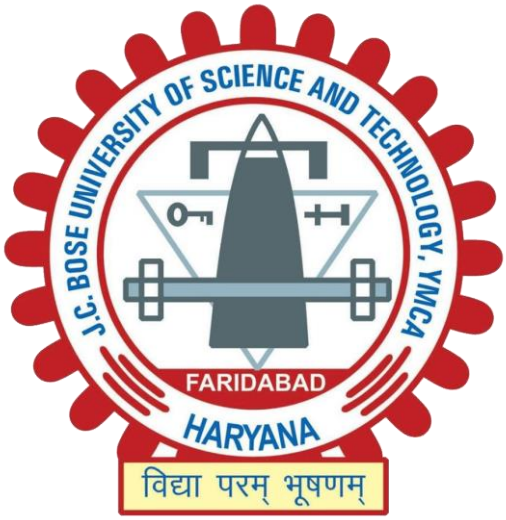
JC BOSE UNIVERSITY OF SCIENCE AND TECHNOLOGY, YMCA, FARIDABAD

Department of Computer Engineering



B.Tech (Information Technology)
5th Semester

OOPS LAB

Assignment No. 6

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Question 1: Conversion from basic to class type

Solution:-

```
#include<iostream>
using namespace std;
class DistConv
{
private:
 int kilometers;
 double meters;

public:
 DistConv(double mile)
 {
 double km = 1.609344 * mile ;
 kilometers = int(km);
 meters = (km - kilometers) * 1000 ;
 }
 void display(void)
 {
 cout << kilometers << " kilometers and " << meters << " meters" ;
 }
};
int main(void)
{ double ml ;
cin >> ml;
 DistConv d1 = ml;
 cout << ml<<" miles = " ;
 d1.display( ) ;
}
```

Output:-

```
6
6miles = 9 kilometers and 656.064 meters n
Process returned 0 (0x0)   execution time : 6.086 s
Press any key to continue.
```

Question 2: Conversion from class to basic type

Solution:-

```
#include<iostream>
using namespace std;
class DistConv
{
private:
 int kilometers;
 double meters;

public:

 DistConv(double mile)
 {
 double km = 1.609344 * mile ;
 kilometers = int(km);
 meters = (km - kilometers) * 1000 ;
 }
 DistConv(int k, float m)
 {
 kilometers = k ;
 meters = m ;
 }

 operator double()
 {
 double K = meters/1000 ;

 K += double(kilometers) ;
 return K / 1.609344 ;
 }
 void display(void)
 {
 cout << kilometers << " kilometers and " << meters << " meters" ;
 }
};

int main(void){
 DistConv d1 = 5.0 ;
 DistConv d2( 2, 25.5 );
 double ml = d1 ;
```

```
d1.display();
cout << " = " << ml << " miles \n" ;
 ml = double(d2) ;
cout << "2.255 kilometers = " << ml << " miles \n" ;

}
```

Output:-

```
8 kilometers and 46.72 meters = 5 milesn
2.255 kilometers = 1.25859 milesn

Process returned 0 (0x0)   execution time : 0.016 s
Press any key to continue.
```

Question 3: Conversion from class to class type

Solution:-

```
#include <bits/stdc++.h>
using namespace std;
class inventory1
{
        int ino,qty;
        float rate;
        public:
                inventory1(int n,int q,float r)
                {
                        ino=n;
                        qty=q;
                        rate=r;
                }
                inventory1()
                {
                        cout<<"\n Inventory1's Object Created";
                }
                int getino()
                {
```

```
                return(ino);
        }
        float getamt()
        {
                return(qty*rate);
        }
        void display()
        {
                cout<<endl<<"ino = "<<ino<<" qty = "<<qty<<" rate = "<<rate;
        }
};
class inventory2
{
        int ino;
        float amount;
        public:

        void operator=(inventory1 I)
        {
                ino=I.getino();
                amount=I.getamt();
        }
        void display()
        {
                cout<<endl<<"ino = "<<ino<<" amount = "<<amount;
        }
};
int main()
{

        inventory1 I1(1001,30,75);
        inventory2 I2;
        I2=I1;

        I1.display();
        I2.display();

}
```

Output: -

```
ino = 1001 qty = 30 rate = 75
ino = 1001 amount = 2250
Process returned 0 (0x0)   execution time : 0.015 s
Press any key to continue.
```