Practical Lecture : Type conversion

Quick Recap

Let’s take a quick recap of previous lecture –

- A) Basic concept of type conversion
- Type conversion- implicit and explicit
- Difference between implicit and explicit conversion
- Basic type to class type
- Class type to basic type

B)

Today’s Agenda

Today we are going to cover -

- One class to another class type

Let’s Get Started-

Conversion from one class type to another class type.

In this type of conversion both the type that is source type and the destination type are of class type.

Means the source type is of class type and the destination type is also of the class type.

In other words, one class data type is converted into the another class type.

Conversion from one class to another class can be performed either by using the constructor or type conversion function.

Conversion from one class type to another class type.

For example we have two classes one for “computer” and another for “mobile”.

Suppose if we wish to assign “price” of computer to mobile then it can be achieved by the statement below which is the example of the conversion from one class to another class type.

```
mob = comp ;
```

// where mob and comp are the objects of mobile and computer classes respectively.

Here the assignment will be done by converting “comp” object which is of class type into the “mob” which is another class data type.

Practice Questions In Class

Write a C++ program that convert class Time to another class Minute demonstrating conversion from one class to another class type. Overload = operator for conversion purpose.

Hint: Declare two classes *"Time"* and *"Minute"* respectively. Create objects of the same. Assign one object to another.

Practice Questions In Class

```
#include <iostream>
using namespace std;
class Time
{
	int hrs,min;
	public:
	Time(int h,int m)
	{
		hrs=h;
		min=m;
	}
	Time()
	{
		cout<<"\n Time's Object Created";
	}
```

Practice Questions In Class

```
int getMinutes()
{
        int tot_min = ( hrs * 60 ) + min ;
                return tot_min;
}
void display()
{
        cout<<"Hours: "<<hrs<<endl ;
                cout<<" Minutes : "<<min <<endl ;
}
};
```

Practice Questions In Class

```
class Minute
{
        int min;
        public:
        Minute()
 {
          min = 0;
 }
void operator=(Time T)
{
        min=T.getMinutes();
}
void display(){
        cout<<"\n Total Minutes : " <<min<<endl;
}
};
```

Practice Questions In Class

Output:
Hours: 2
Minutes : 30

Total Minutes : 0

Hours: 2
  Minutes : 30
    Total Minutes : 150

Assignment

Define two classes one for "*computer*" and another for "*mobile*". *Let us have attributes like model, price etc. A*ssign *"price"* of *computer* to *mobile using* the statement below which is the example of the conversion from one class to another class type.
mob = comp ; // where mob and comp are the objects of mobile and computer classes respectively. Here the assignment will be done by converting *"comp"* object which is of class type into the *"mob"* which is another class data type.

Implement the above code by overloading = operator.

MCQ question

State true or false.
Conversion from class type to class type can be done only using operator overloading .

Options:
True
False

MCQ question

State true or false.
Conversion from class type to class type can be done only using operator overloading .

Options:
True
False

Answer: False

Assignment : Implement the program of time and minutes to convert one class into another using constructor.

MCQ question

Choose the correct option:

Conversion from one class to another class can be performed by

1. using the constructor .
2. using type conversion function.
3. using operator overloading .
4. Using ‘=‘ operator which is a Conversion function

Options:

A. 1,2
B. 1,2,3
C. 1,2,3,4
D. 2,3

MCQ question

Choose the correct option:

Conversion from one class to another class can be performed by

1. using the constructor .
2. using type conversion function.
3. using operator overloading .
4. Using ‘=‘ operator which is a Conversion function

Options:

A. 1,2
B. 1,2,3
C. 1,2,3,4
D. 2,3

Answer: Option C

QNA Time

Any Questions ??

Any Questions??

Thank You!

See you guys in next class.