

**Practical Lecture :Operator
Overloading 2**



Quick Recap

Let's take a quick recap of previous lecture –

A)

B)

C)

D)

E)

Today's

Today we are going to cover -

- Overloading Binary Operator using a Friend function
- MCQ Question
- Coding Based Question

Let's Get Started-

Overloading Binary Operator

In this approach, the operator overloading function must precede with friend keyword, and declare a function class scope. Keeping in mind, friend operator function takes two parameters in a binary operator, varies one parameter in a unary operator. All the working and implementation would same as binary operator function except this function will be implemented outside of the class scope.

Overloading Binary Operator

```
#include <iostream>
```

```
using namespace std;
```

```
class Distance {  
public:
```

```
    // Member Object  
    int feet, inch;
```

```
    // No Parameter Constructor  
    Distance()  
    {  
        this->feet = 0;  
        this->inch = 0;  
    }
```

Overloading Binary Operator

```
// Implementing friend function with two parameters
Distance operator+(Distance& d1, Distance& d2) // Call by reference
{
    // Create an object to return
    Distance d3;

    // Perform addition of feet and inches
    d3.feet = d1.feet + d2.feet;
    d3.inch = d1.inch + d2.inch;

    // Return the resulting object
    return d3;
}
```

Overloading Binary Operator

```
int main()
{ // Declaring and Initializing first object
  Distance d1(8, 9);

  // Declaring and Initializing second object
  Distance d2(10, 2);

  // Declaring third object
  Distance d3;

  // Use overloaded operator
  d3 = d1 + d2;

  // Display the result
  cout << "\nTotal Feet & Inches: " << d3.feet << " " << d3.inch;
  return 0;
}
```


MCQ 1

Which of the following operators cannot be overloaded

A (Member Access or Dot operator)

B?: (Ternary or Conditional Operator)

C:: (Scope Resolution Operator)

D.* (Pointer-to-member Operator)

E. All the above

MCQ 1

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MCQ 2

Which is the correct example of a binary operator?

- a) ++
- b) —
- c) Dereferencing operator(*)
- d) +

MCQ 2

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MCQ 2

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MCQ 3

Which is the correct statement about operator overloading?

- a) Only arithmetic operators can be overloaded
- b) Only non-arithmetic operators can be overloaded
- c) Precedence of operators are changed after overlaoding
- d) Associativity and precedence of operators does not change

MCQ 3

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MCQ 4

Which of the following operators should be preferred to overload as a global function rather than a member method?

A Postfix ++

B Comparison Operator

C Insertion Operator <<

D Prefix+

MCQ 4

Which of the following operators should be preferred to overload as a global function rather than a member method?

A Postfix ++

B Comparison Operator

C Insertion Operator <<

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MCQ 5

2) In case of operator overloading, operator function must be ____ .

1. Static member functions
 2. Non- static member functions
 3. Friend Functions
- a. Only 2
 - b. Only 1, 3
 - c. Only 2 , 3
 - d. All 1 , 2, 3

MCQ 5

2) In case of operator overloading, operator function must be ____ .

1. Static member functions
 2. Non- static member functions
 3. Friend Functions
- a. Only 2
 - b. Only 1, 3
 - c. Only 2 , 3**
 - d. All 1 , 2, 3

MCQ 6

When overloading unary operators using Friend function, it requires _____ argument/s.

- a. Zero
- b. One
- c. Two
- d. None of these.

MCQ 6

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b. One

c. Two

d. None of these.

Questions

- 1) What do you understand by operator overloading explain with example?
- 2) Which operators cannot be overloaded?
- 3) What are the different approaches to overload operator?

A blurred photograph of a conference or seminar. In the foreground, the backs of several audience members' heads and shoulders are visible. One person on the left has their hand raised. In the background, a speaker is standing at a podium, gesturing with their right hand. A large screen is visible on the left side of the stage.

Any
Questions ??

Thank You!

See you guys in next class.