

## B. Class Type to Basic Type Conversion

Class types can be converted to basic types by overloading conversion operators or by providing explicit conversion functions. This allows for extracting relevant information or converting class objects into values of basic types.

### Example: Conversion from String Class to int

```
#include <iostream>
#include <string>
using namespace std;

class String {
private:
    string value;

public:
    String(string val) : value(val) {}

    // Conversion operator for int
    operator int() const {
        return stoi(value); // Convert string to int
    }
};

int main() {
    String str("42");
    int number = str; // Conversion from String to int

    cout << "Integer value: " << number << endl;
    return 0;
}
```

## C. Class Type to Another Class Type Conversion

Class types can be converted to other class types through constructors or conversion operators defined in the respective classes. This allows for creating objects of one class type from objects of another class type.

### Example: Conversion from Feet Class to Meter Class

```
#include <iostream>
using namespace std;

class Meter {
private:
    double value;

public:
```

```

    Meter(double val) : value(val) {}

    void display() {
        cout << "Meter value: " << value << endl;
    }
};

class Feet {
private:
    double value;

public:
    Feet(double val) : value(val) {}

    // Conversion operator for Meter
    operator Meter() const {
        return Meter(value * 0.3048); // Convert feet to meter
    }
};

int main() {
    Feet feet(10);
    Meter meter = feet; // Conversion from Feet to Meter

    meter.display();
    return 0;
}

```

## Section 3 : Virtual Functions & Polymorphism

### 3.1 Concept of Binding

Binding in C++ refers to the association between function calls and function definitions. It determines which function definition gets executed when a function is called. Binding can be of two types:

1. Static (or Early) Binding
2. Dynamic (or Late) Binding

#### A. Early Binding (Static or Compile-time Binding)

Early binding, also known as static binding or compile-time binding, occurs when the function call is resolved at compile time. In early binding, the compiler determines which function implementation to call based on the static type of the object or pointer. Static binding is used for normal function calls, function overloading and operator overloading.