

# 20 Lecture - CS304

## Important Subjective

### 1. **What is the purpose of the subscript operator in C++?**

The subscript operator is used to access individual elements of an array or objects that support subscripting.

#### **How is the subscript operator implemented in a class?**

The subscript operator can be overloaded in a class by defining a method that takes an integer index as a parameter and returns a reference to the object at that index.

#### **Can the subscript operator be overloaded for non-integer types?**

Yes, the subscript operator can be overloaded for any type that can be used as an index, including non-integer types such as strings or custom classes.

#### **How does the subscript operator differ from a regular function call?**

The subscript operator is used with square brackets [] and is used to access a specific element of an array or object, whereas a regular function call is used to execute a specific function and can take any number of parameters.

#### **Can the subscript operator be used for both reading and writing data?**

Yes, the subscript operator can be overloaded to allow both reading and writing of data.

#### **What is the return type of the subscript operator method?**

The return type of the subscript operator method is typically a reference to the object type of the array or collection being indexed.

#### **How can the subscript operator be used with pointers?**

The subscript operator can be used with pointers by first dereferencing the pointer and then using the subscript operator on the resulting object.

#### **What happens if an index is out of bounds when using the subscript operator?**

If an index is out of bounds when using the subscript operator, the behavior is undefined and may result in a segmentation fault or other runtime error.

#### **How does the subscript operator work with multidimensional arrays?**

The subscript operator can be overloaded to support multidimensional arrays by taking multiple indices as parameters and returning a reference to the object at that location.

#### **Can the subscript operator be used with standard library containers?**

Yes, many standard library containers in C++ support the subscript operator, including vectors, arrays, and maps.