

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.