

9 Lecture - CS304

Important Subjective

1. **What is shallow copy and how does it differ from deep copy?**

Answer: Shallow copy is a type of copying in which only the pointers or references to the data members of an object are copied to a new object, rather than creating a new copy of the data itself. Deep copy, on the other hand, creates a new copy of the data itself.

How is a shallow copy different from a pointer copy?

Answer: Shallow copy copies both the pointers and the data they point to, while pointer copy only copies the pointers themselves.

Can a shallow copy be modified without affecting the original object?

Answer: No, any changes made to the data in the new object will affect the original object as well.

What is the purpose of using shallow copy in programming?

Answer: The purpose of shallow copying is to create a new object that refers to the same data as the original object.

Which programming languages support shallow copying by default?

Answer: C++ supports shallow copying by default.

Is it possible to create a shallow copy manually in C++?

Answer: Yes, it is possible to create a shallow copy manually in C++.

Can a shallow copy be used to create an independent copy of an object?

Answer: No, a shallow copy cannot be used to create an independent copy of an object.

What is the difference between a shallow copy and a reference?

Answer: A shallow copy creates a new object that refers to the same data as the original object, while a reference is simply another name for the original object.

What happens if a shallow copy is deleted before the original object?

Answer: If a shallow copy is deleted before the original object, the new object is deleted, but the original object remains unaffected.

What are some potential issues with using shallow copy in programming?

Answer: One potential issue is that any changes made to the new object will affect the original object, which can lead to unexpected behavior. Additionally, it can be difficult to keep track of which objects are shallow copies and which are deep copies, which can lead to errors in the code.