

37 Lecture - CS304

Important Subjective

1. **What is resolution order, and why is it important in programming?**

Answer: Resolution order is the set of rules that determine the order in which conflicting claims or issues will be addressed. It is important in programming because it helps resolve conflicts between variables or functions with the same name or value.

How is resolution order determined in Python classes?

Answer: The default resolution order for Python classes is determined using a depth-first search of the inheritance hierarchy.

What is the diamond problem, and how is it solved in programming languages that support multiple inheritance?

Answer: The diamond problem is a scenario that arises in languages that support multiple inheritance, where a class inherits from two or more classes that have a common ancestor. It is solved using various approaches, such as method resolution order (MRO) or virtual inheritance.

What is the order of precedence for CSS styles?

Answer: The order of precedence for CSS styles is inline styles, embedded styles, and external styles.

What is the resolution order for overloaded operators in C++?

Answer: The resolution order for overloaded operators in C++ is undefined, meaning that it is up to the compiler to decide.

What is the difference between left-to-right and right-to-left resolution order in programming?

Answer: Left-to-right resolution order evaluates expressions from left to right, while right-to-left resolution order evaluates expressions from right to left.

How is the resolution order for conflicting domain name records determined?

Answer: The resolution order for conflicting domain name records is determined by the order of precedence of the record types, which is CNAME, A, and then MX.

How is the resolution order for conflicting method calls determined in Java?

Answer: The resolution order for conflicting method calls in Java is determined by the class hierarchy, where methods in the superclass take precedence over methods in the subclass.

What is method resolution order (MRO) in Python, and how is it determined?

Answer: Method resolution order (MRO) in Python is the order in which methods are searched for and executed in a class hierarchy. It is determined using the C3 linearization algorithm, which is a modified depth-first search of the inheritance graph.

What is the difference between breadth-first search and depth-first search, and how are they used in resolution order?

Answer: Breadth-first search explores all the neighbors of a node before moving on to the next

level, while depth-first search explores as far as possible along each branch before backtracking. Both algorithms can be used in resolution order, depending on the context and the desired outcome.