

5 Lecture - CS304

Important Subjective

1. **What is simple association and how is it represented in UML diagrams?**

Answer: Simple association is a relationship between two classes in object-oriented programming where one class is related to the other in a non-inherited way. It is typically represented by a solid line connecting the two classes in UML diagrams.

How does simple association enable communication and collaboration between classes?

Answer: Simple association allows for objects of one class to interact with objects of another class, enabling communication and collaboration between the two classes. This can be achieved through methods, properties, and other interactions between the objects.

What is the difference between one-way and bidirectional simple association?

Answer: One-way simple association allows for objects of one class to interact with objects of another class, while the reverse is not necessarily true. Bidirectional simple association allows for objects of both classes to interact with each other.

Can a class be associated with itself using simple association?

Answer: Yes, a class can be associated with itself using simple association. This is known as self-association.

How is the directionality of simple association determined?

Answer: The directionality of simple association is determined by the roles of the two classes involved. The class on the left side of the association usually initiates the interaction, while the class on the right side receives it.

What is the difference between simple association and composition?

Answer: Simple association is a relationship between two classes where one class is related to the other in a non-inherited way. Composition, on the other hand, is a type of association where one class is a part of another class and cannot exist independently.

Can simple association be one-to-many or many-to-many?

Answer: Yes, simple association can be one-to-many or many-to-many, depending on the roles and multiplicities of the classes involved.

What is the role of multiplicities in simple association?

Answer: Multiplicities define the number of objects that can be associated with each other. They specify the minimum and maximum number of objects that can be associated with each class.

What is the difference between simple association and aggregation?

Answer: Simple association is a relationship between two classes in a non-inherited way, while aggregation is a type of association where one class is composed of one or more instances of another class.

Can simple association be used in polymorphism?

Answer: Yes, simple association can be used in polymorphism to enable objects of different

classes to interact with each other in a non-inherited way.