1.What diagram types do you have on your current project?

**Structure Diagrams**

Deployment diagram

Components Diagram

Class diagram

**Behavior Diagrams**

Use Case Diagrams

Activity

State machine diagram

Sequence diagram

2. What are the pros and cons of UML diagrams?

Pros

The UML can be used to model any type of application,

The UML can be effective for modeling large, complex software systems.

The UML helps with reverse engineering support.

Cons

UML is large and complex.

Synchronizing code with models is difficult: Using multiple models/diagrams makes it difficult to keep them consistent with each other and the code and much code has to be added by hand.

3. What is the difference between a structural diagram and a behavioral diagram in UML?

**Structure diagrams** show the static structure of the system and its parts on different abstraction and implementation levels and how they are related to each other.

The elements in a structure diagram represent the meaningful concepts of a system, and may include abstract, real world and implementation concepts.

**Behavior diagrams** show the dynamic behavior of the objects in a system, which can be described as a series of changes to the system over time.

4. Name the relationship types in a use case diagram.

Association relationships

In UML models, an association is a relationship between two classifiers, such as classes or use cases, that describes the reasons for the relationship and the rules that govern the relationship.

Generalization relationships

In UML modeling, a generalization relationship is a relationship in which one model element (the child) is based on another model element (the parent). Generalization relationships are used in class, component, deployment, and use-case diagrams to indicate that the child receives all of the attributes, operations, and relationships that are defined in the parent.

Include relationships

In UML modeling, an include relationship is a relationship in which one use case (the base use case) includes the functionality of another use case (the inclusion use case). The include relationship supports the reuse of functionality in a use-case model.

Extend relationships

In UML modeling, you can use an extend relationship to specify that one use case (extension) extends the behavior of another use case (base). This type of relationship reveals details about a system or application that are typically hidden in a use case.

5. What is the sequence diagram?

**UML Sequence Diagrams** are interaction diagrams that detail how operations are carried out. They capture the interaction between objects in the context of a collaboration. Sequence Diagrams are time focus and they show the order of the interaction visually by using the vertical axis of the diagram to represent time what messages are sent and when.