SUPER KEYWORD IN JAVA

1.What is the super keyword in Java?

The super keyword is used to access members (fields and methods) of the immediate superclass or to call the superclass constructor.

2.What are the two main uses of super?

Accessing Superclass Members: When a subclass has a variable or method with the same name as one in the superclass, super is used to explicitly refer to the superclass member.
Calling Superclass Constructor: When creating a subclass object, super() is used to call the constructor of the superclass, passing necessary arguments if required.

3.When would you use super to access superclass members?

When a subclass overrides a superclass method but still wants to access the original implementation.
When a subclass has a variable with the same name as a superclass variable, and you need to distinguish between them.

4.When would you use super() to call the superclass constructor?

When the subclass constructor needs to perform initialization steps inherited from the superclass.
When the subclass constructor requires arguments that need to be passed to the superclass constructor.

5.What are the different ways to call the superclass constructor using super()?

super() (no arguments): Calls the no-argument constructor of the superclass.
super(arguments): Calls the specific constructor of the superclass with the provided arguments.

6.Can you explain constructor chaining using super?

Constructor chaining allows a subclass constructor to call another constructor within the same subclass or the superclass using this() and super().

7.What are the benefits and drawbacks of using super?

Benefits:
Maintains inheritance hierarchy and proper initialization.
Allows access to superclass functionality from the subclass.
Drawbacks:
Overuse can lead to complex and hard-to-understand code.
Potential confusion if not used carefully.

8.What are some best practices for using super effectively?

Use it only when necessary to access superclass members or call the superclass constructor.
Keep constructor chaining simple and easy to understand.
Document the use of super clearly in your code.

9.How does super differ from this in Java?

super refers to the superclass, while this refers to the current object itself.
super is used with superclass members, while this is used with current object members and methods.

10.Describe a scenario where using super might be inappropriate.

If the subclass completely replaces the functionality of a superclass member, using super might be unnecessary and potentially confusing.