Overriding

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A polymorphism that is exhibited at runtime is called dynamic polymorphism in java. In dynamic polymorphism, the behavior of a method is decided at runtime, therefore, the JVM (Java Virtual Machine) binds the method call with method definition/body at runtime and invokes the relevant method during runtime when the method is called.

This happens because objects are created at runtime and the method is called using an object of the class. The Java compiler has no awareness of the method to be called on an instance during compilation. Therefore, JVM invokes the relevant method during runtime.

- Method Overriding
- Covariant Return Type
- Difference between overloading and overriding
- Method Hiding in Java
- Class Casting
- Upcasting
- Generalization, Specification and Downcasting

Static and Dynamic Binding

The connecting (linking) between a method call and method body/definition is called binding in java.

- **Static/Early Binding**
- **Dynamic/Late Binding**

The binding that happens during compilation is called **static binding** in java. This binding is resolved at the compile time by the compiler.

The binding which occurs during runtime is called **dynamic binding** in java. This binding is resolved based on the type of object at runtime. In dynamic binding, the actual object is used for binding at runtime.

Interview Questions