

Class and Objects in java:

- 1.What are Objects?
- 2.What is a class?
- 3.What is the default value of an object reference declared as an instance variable?
->(null unless we define it explicitly.)
- 4.Can a top-level class be private or protected?
- 5.Differentiate between a Class and an Object?
- 6.Explain the concept of access modifiers in Java classes and their significance.
- 7.What is a bean? Where can it be used?
- 8.What is the difference between instance, object, reference and a class?
- 9.Define an abstract class.Why are abstract classes?
- 10.What is the difference between an Abstract class and Interface?Give example.
- 11.What is Singleton class and give use case for it?
12. Why do we make the constructor private in a Singleton class?
- 13.What is Inner class?Give an example of it.
- 13.What is the difference between a static and a non-static inner class?
14. What are the properties of Object and also explain them with examples.
- 15.What is the purpose of the static keyword in Java, and how is it used with class members?
- 16.Explain the concept of anonymous classes in Java.
- 17.Give a practical example of anonymous class.
- 18.Explain the concept of reflection in Java.
- 19.Give an example of method invocation using Reflection.
- 20.What is the purpose of the System class?
- 21.What is the Object class in Java, and how does it relate to other classes?
- 22.What is the role of the hashCode() and equals() methods of Object base class?
- 23.How can you achieve immutability in a class in Java?
- 24.What are the benefits of immutability?
- 25.What is the role of the ClassLoader in Java, and how does it work with classes during runtime?
- 26.What are the different ways of creating an object in java?
- 27.What are the different ways to initialize objects in java ?
- 28.How is memory allocated for objects in Java?
- 29.What happens when the class is loaded by the classloader?
- 30.Does class take any memory?
- 31.What is the purpose of the equals() method in Java objects? How is it different from the == operator?
- 32.Explain the concept of object serialization in Java.

- 33.Explain the concept of object cloning in Java.
- 34.Give an example of object cloning.
- 35.What is the difference between shallow copy and deep copy when working with objects?
- 36.How does garbage collection work in Java, and how does it relate to objects?
- 37.What is the purpose of hashCode()?
- 38.What is the significance of the finalize() method in Java objects?
- 39.How can you prevent an object from being serialized in Java?
- 40.What is the difference bean and POJO class?
- 41.Give an example explaining the difference between bean and POJO mentioning its use cases.
- 42.What is Object Oriented Programming?
- 43.Advantages of OOPS.
- 44.Explain the concept of a factory method in the context of object creation. How does it provide flexibility in creating objects?
- 45.Explain the concept of the instanceof operator in Java. How is it used, and what are some potential use cases?