

Beginner Java Questions with Answers for Software Testing

1. What is Java?

Java is a high-level, object-oriented programming language developed by Sun Microsystems. It is platform-independent due to the Java Virtual Machine (JVM).

2. What are the main features of Java?

Java features include: Object-Oriented, Platform Independent, Simple, Secure, Architecture-Neutral, Portable, Robust, Multithreaded, and High Performance.

3. What is the role of Java in software testing?

Java is widely used in test automation frameworks like Selenium, Appium, and JUnit. It helps write test scripts, create test cases, and manage test suites.

4. What is the difference between JDK, JRE, and JVM?

JDK: Java Development Kit (for developing Java apps). JRE: Java Runtime Environment (to run Java apps). JVM: Java Virtual Machine (executes Java bytecode).

5. What is a class and object in Java?

Class: A blueprint for creating objects. Object: An instance of a class containing state (fields) and behavior (methods).

6. What are access modifiers in Java?

Access modifiers define visibility. Types: public, private, protected, and default (no modifier).

7. What is inheritance in Java?

Inheritance allows one class to acquire properties and methods of another class using the 'extends' keyword.

8. What is polymorphism?

Polymorphism means one name, many forms. Java supports method overloading and method overriding.

9. What is an interface in Java?

An interface is a reference type in Java, similar to a class, that can contain only constants, method

signatures, and default methods. It is used to achieve abstraction and multiple inheritance.

10. How is exception handling done in Java?

Using try, catch, throw, throws, and finally keywords. It helps handle runtime errors to maintain normal application flow.