## **Java Programming**

Java is a versatile, object-oriented programming language widely used for building robust, scalable applications across platforms. Known for its "write once, run anywhere" philosophy, Java code is compiled into bytecode that runs on the Java Virtual Machine (JVM), making it platform-independent. It's a popular choice for developing web applications, mobile apps (especially Android), enterprise software, and even games. Java emphasizes readability, maintainability, and strong memory management, with features like garbage collection and exception handling. Its rich set of libraries and frameworks—such as Spring, Hibernate, and JavaFX—make development faster and more efficient. Whether you're a beginner or an experienced developer, Java offers a powerful foundation for mastering software development.