

JAVA

1: Introduction to Java: History of Java, Features of Java, Java Development Kit (JDK), Security in Java

2: Java Basics: Keywords; Working of Java; Including Comments; Data Types in Java; Primitive Data Types; Abstract / Derived Data Types; Variables in Java; Using Classes in Java; Declaring Methods in Java, Code to Display Test Value; The main() Method, Invoking a Method in Java; Saving, Compiling and Executing Java Programs

3 : Operators and Control Statements: Operators, Arithmetic Operators, Increment and Decrement Operators, Comparison Operators, Logical Operators, Operator Precedence; Control Flow Statements, If-else Statement, Switch Statement, For Loop, While Loop, Do...While Loop, Break Statement Continue Statement

4: Arrays and Strings: Arrays; String Handling; Special String Operations; Character Extraction; String Comparison; Searching Strings; String Modification; StringBuffer

5: Inheritance, Package and Interface: Inheritance, Types of Relationships, What is Inheritance?, Significance of Generalization, Inheritance in Java, Access Specifiers, The Abstract Class; Packages, Defining a Package, CLASSPATH; Interface, Defining an Interface, Some Uses of Interfaces, Interfaces versus Abstract Classes

6: Exception Handling: Definition of an Exception; Exception Classes; Common Exceptions; Exception Handling Techniques

7: Streams in Java: Streams Basics; The Abstract Streams; Stream Classes; Readers and Writers; Random Access Files; Serialization

8: Applets: What are Applets?; The Applet Class; The Applet and HTML; Life Cycle of an Applet; The Graphics Class; Painting the Applet; User Interfaces for Applet; Adding Components to user interface; AWT (Abstract Windowing Toolkit) Controls

9: Event Handling: Components of an Event; Event Classes; Event Listener; Event-Handling; Adapter Classes; Inner Classes; Anonymous Classes

10: Swing: Concepts of Swing; Java Foundation Class (JFC); Swing Packages and Classes; Working with Swing- An Example; Swing Components

11: Java Data Base Connectivity: Java Data Base Connectivity; Database Management; Mechanism for connecting to a back end database; Loading the ODBC driver

12: RMI, CORBA and Java Beans: Remote Method Invocation (RMI); RMI Terminology; Common Object Request Broker Architecture (CORBA), What is Java IDL?, Example: The Hello Client-Server; Java Beans, The BeanBox, Running the BeanBox

13: Networking in Java: Networking in Java; URL Objects

14: Java Server Pages and Servlets: Java Server Pages (JSP), What is needed to write JSP based web application?, How does JSP look?, How to test a JSP?; Servlets, History of Web Application, Web Architecture, Servlet Life Cycle