

# Java Programming Syllabus

➤ **For whom is this syllabus designed?**

- ✓ Professionals seeking for Job in IT Industry. This course helps to get clear idea about ample of programming concepts and makes you confident for Job Interviews.
- ✓ Students seeking Diploma / Degree in Engineering and have Java as a part of their syllabus.
- ✓ Any student curious to gain practical knowledge on programming with Hands-on training.

Sr.	Topic	Contents
	<b>Basics</b>	Basics of C Programming Basics of HTML & SQL
1.	<b>Introduction to Java</b>	<b>1.1.</b> What is Java? Concept of OOP. <b>1.2.</b> Character Set, Identifiers & Keywords. <b>1.3.</b> Datatypes, Constant, Variables, Class, Objects, and methods. <b>1.4.</b> Operators (Arithmetic, Relational, Logical, Assignment, Unary, Conditional, Bitwise).
2.	<b>Variables</b>	<b>2.1.</b> Static and Final Keyword. <b>2.2.</b> Constant variable. <b>2.3.</b> Variable Scopes and variable override <b>2.4.</b> Type casting <b>2.5.</b> Reference variable.
3.	<b>Java I/O Fundamentals</b>	<b>3.1.</b> Read and write data from the console by using classes in the java.io package including BufferedReader, DataInputStream. <b>3.2.</b> Java.util class and use of scanner class.
4.	<b>Decision Control Structure</b>	<b>4.1. Branching:</b> If Statement, If-else, else-if, Switch Case. <b>4.2. Looping:</b> For loop, while, do-while. <b>4.3.</b> Continue, Break.
5.	<b>Logic Building</b>	<b>5.1.</b> Star (*) Pattern Design, Number Pattern Design. <b>5.2.</b> Logic Building Practice
6.	<b>Class and Objects (OOP's Concept)</b>	<b>6.1.</b> Define Class, Concept of Class, Define the structure of a class, Abstract Classes, Interface, Create Java applications with a main method. <b>6.2.</b> What is Object? Application of Objects, Call methods on objects.
7.	<b>Methods</b>	<b>7.1.</b> Why Methods? Method Definition, Return Types, Calling Conventions, Passing Arguments to a Method, Recursion, overloaded method, Override Methods, Constructor, overload constructors, access modifiers.

		<b>7.2. Inheritance:</b> Define inheritance, Use abstract classes and interfaces,
8.	<b>Array, Vector</b>	<b>8.1. Array:</b> Basics of Array, 2-D Array, 3-D Array. Accessing Array. <b>8.2. Vector:</b> Declaring A Structure, Accessing Structure Array of Structure.
9.	<b>Java String</b>	<b>9.1.</b> Define String Class, Methods of String. <b>9.2.</b> Java String Processing. <b>9.3.</b> Java StringBuffer Class and StringBuilder Class.
10.	<b>Exception Handling</b>	<b>10.1.</b> Define Exception, Runtime Exception, <b>Try-Catch</b> Block, User Define Exception, Throws an Exception. <b>10.2.</b> Nested Try and Multiple Catch Block. <b>10.3.</b> Finally Block
11.	<b>Threads</b>	<b>11.1.</b> Create and use the Thread, Runnable interface. <b>11.2.</b> Synchronize thread access to shared data.
12.	<b>Package</b>	<b>12.1.</b> Java Package Concept. <b>12.2.</b> Java Package Programming Method in Easy way
13.	<b>Basic of GUI Programming</b>	<b>13.1. Applet:</b> Applet life cycle, Creating applets, Graphics class methods, Font and Color class, parameter passing. Event classes and event listener <b>13.2. Introduction to AWT:</b> Working with windows, Using AWT controls – push Buttons, Label, Text Fields, Text Area, Check Box, and Radio Buttons.
14.	<b>Working with Database</b>	<b>14.1. Programming using JDBC:</b> Introduction to JDBC, JDBC Drivers & Architecture

