

# JAVA FULL STACK

## COURSE STRUCTURE

MODULE	TITLE
1	Introduction to Computer Science
	<ul style="list-style-type: none"> <li>· Introduction to Languages and Packages</li> <li>· Introduction to Programming Languages</li> <li>· Introduction to Translators</li> <li>· Introduction to Coding by Comparing Various Programming Languages</li> <li>· Designing Flowcharts</li> <li>· Writing Algorithms</li> <li>· Introducing Programming through Interpreter: GW-BASIC</li> </ul>
2	BASIC LANGUAGE TOPICS:
	<ul style="list-style-type: none"> <li>· CODING RULES</li> <li>· Output Statement - PRINT</li> <li>· Input Statement - INPUT</li> <li>· Assignment Statement - LET</li> <li>· Control Jump Statement - GOTO</li> <li>· Conditional Statement - IF-THEN-ELSE</li> <li>· LOOP Statements - WHILE-WEND and FOR-TO-NEXT</li> <li>· Nested IF, Nested Loops, Arrays, and Functions</li> <li>· Introducing Programming through Compiler: C/C++</li> </ul>
3	C/C++ LANGUAGE TOPICS:
	<ul style="list-style-type: none"> <li>· CODING RULES</li> <li>· Steps in Learning Languages C/C++</li> <li>· Character set in C/C++</li> <li>· Tokens in C/C++</li> <li>· Statements in C/C++</li> <li>· Structure of C/C++</li> <li>· Expressions</li> <li>· Arrays</li> <li>· Functions</li> <li>· Pointers</li> <li>· Structures/Unions</li> <li>· Files</li> <li>· Miscellaneous Topics like Modifiers, Qualifiers, and Storage classes</li> </ul>

4	<p>Introduction to OOPS</p> <ul style="list-style-type: none"> <li>· Introduction to C++ with OOPS</li> <li>· Introduction to Java Programming Language</li> <li>· Comparison of C/C++/Java</li> <li>· Java Buzzwords</li> <li>· Applications of C/C++/Java</li> <li>· Java Features in Detail –Byte code, JIT compiler, and JVM Architecture</li> <li>· Introducing Programming through OOP Language: Java</li> </ul>
5	<p>Java LANGUAGE TOPICS: Core</p> <ul style="list-style-type: none"> <li>· CODING RULES</li> <li>· Steps in Learning Languages Java/C#</li> <li>· Character set in Java</li> <li>· Tokens in Java</li> <li>· Statements in Java-Categories</li> <li>· Structure of Java</li> <li>· C/C++ core concepts in Java like Loops, Conditions, Nesting etc</li> <li>· Classes</li> <li>· Objects</li> <li>· Methods</li> <li>· Encapsulation</li> <li>· Constructors</li> <li>· Encapsulation and Data hiding</li> <li>· Message Passing and Binding</li> <li>· Polymorphism-Overloading methods</li> <li>· Inheritance-Overriding methods</li> <li>· Static members</li> <li>· Arrays</li> <li>· String Basics</li> <li>· Command Line Arguments</li> <li>· Packages</li> <li>· Inheritance in depth</li> <li>· Interfaces</li> <li>· Exception Handling</li> <li>· Wrapper classes</li> <li>· JVM in Detail</li> <li>· Garbage Collection</li> <li>· String Manipulation</li> <li>· Multithreading</li> <li>· I/O Streams</li> <li>· Collection Framework</li> <li>· Inner classes</li> <li>· Reflection API</li> <li>· Miscellaneous Concepts - Auto Boxing, Varargs, Annotations etc</li> </ul>

6	Introduction to Web
	<ul style="list-style-type: none"> <li>· Introduction to Web pages, sites</li> <li>· Introduction to Web Designing</li> <li>· Introduction to Web Programming</li> <li>· Comparison of Web Designing Tools</li> </ul>
7	Web designing TOPICS:
	<ul style="list-style-type: none"> <li>· DESIGNING RULES</li> <li>· Steps in Learning scripting Languages HTML/CSS</li> <li>· HTML</li> <li>· CSS</li> <li>· Javascript</li> <li>· JQuery</li> </ul>
8	Introduction to Data and Database
	<ul style="list-style-type: none"> <li>· Introduction to Database Packages, Languages</li> <li>· Introduction to Traditional file system</li> <li>· Comparison of DBMS and RDBMS</li> <li>· Introduction to Oracle, SQL, and PL/SQL</li> </ul>
9	Oracle SQL TOPICS:
	<ul style="list-style-type: none"> <li>· Database Designing RULES</li> <li>· DDL Commands</li> <li>· DML Commands</li> <li>· TCL Commands</li> <li>· Queries</li> </ul>
10	Introduction to Advanced Java/Web Technologies
	<ul style="list-style-type: none"> <li>· Introduction to Java Database Connectivity</li> <li>· Introduction to Servlet Programming</li> <li>· Introduction to Java Server Pages</li> </ul>
11	Adv Java TOPICS:
	<ul style="list-style-type: none"> <li>· JDBC</li> <li>· Servlets</li> <li>· JSP</li> </ul>
12	Introduction to Framework
	<ul style="list-style-type: none"> <li>· Hibernate</li> <li>· Spring</li> <li>· Mini Project (Offline)</li> </ul>