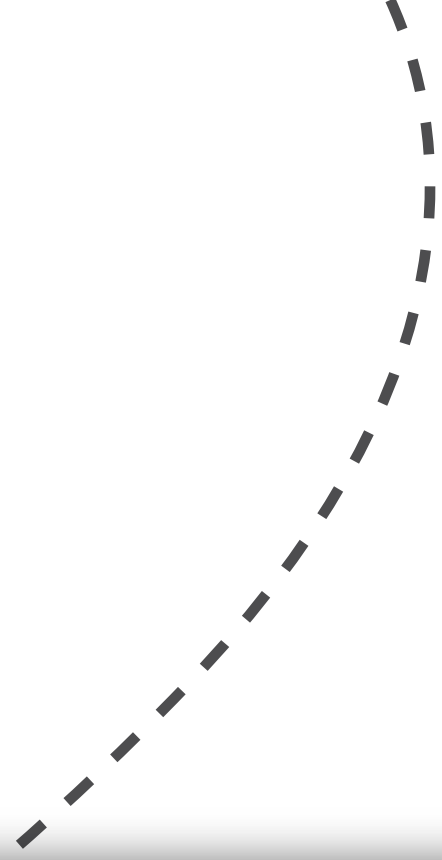


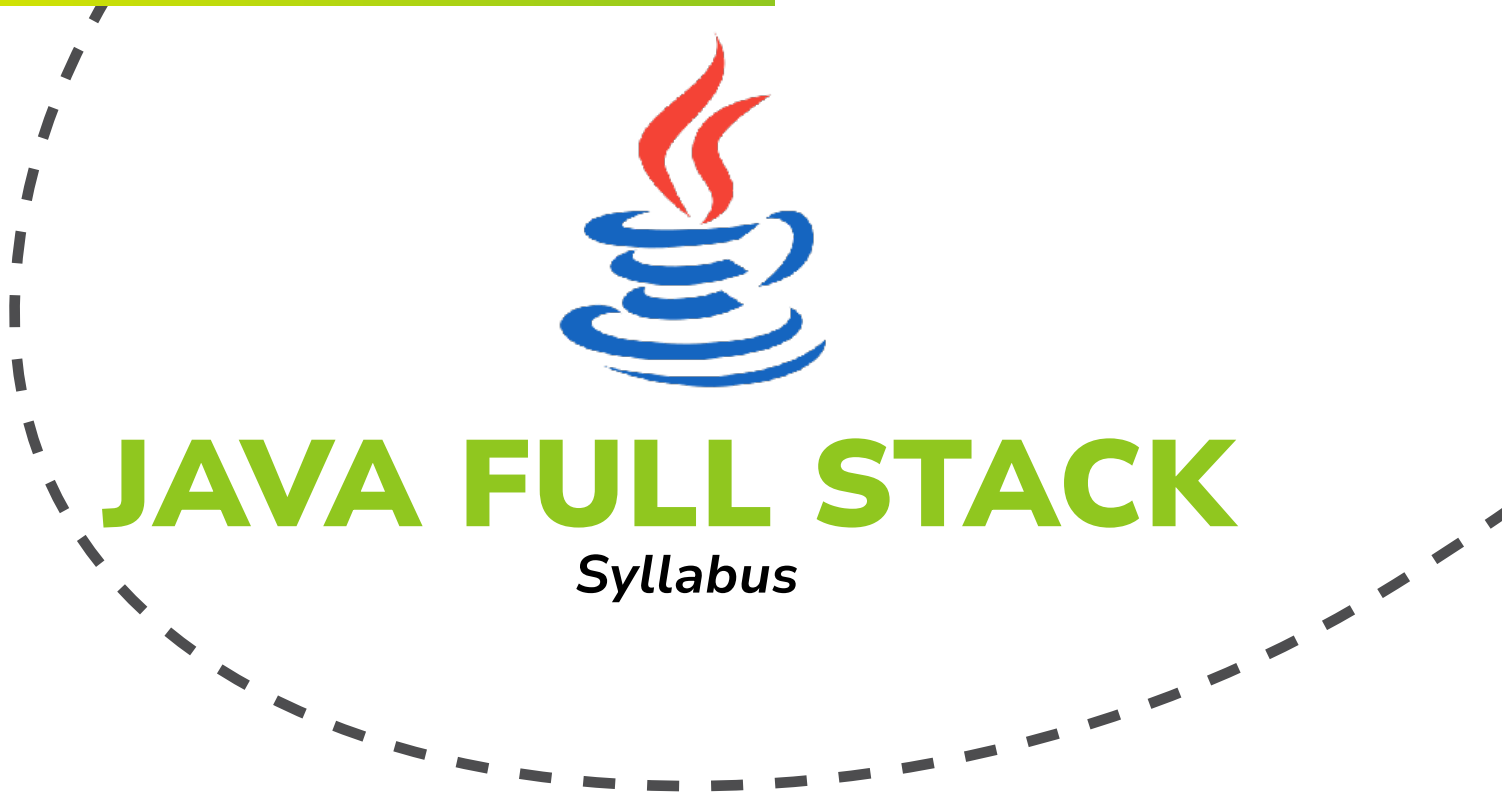


**FirstBitSolutions.com**  
...Learn IT, Bit by Bit...



# JAVA FULL STACK

*Syllabus*



# 1

## C Programming

- *Programming Basics*
- *Functions (Built-in and User defined)*
- *Pointers*
- *Arrays*
- *String*
- *Dynamic Memory Allocation*
- *Structures*
- *Macros*
- *Mini Project*

# 2

## C++

- *Introduction to OOP*
- *Class, Object*
- *Constructor, Destructor*
- *Operator Overloading*
- *Reference variable*
- *new, delete keywords*
- *Inheritance, Polymorphism*
- *Upcasting, Downcasting, Compile time,*
- *Runtime polymorphism*
- *Virtual pointer algorithm, Virtual table*
- *Abstract method, Pure virtual function*
- *Friend function, Inline function*
- *Access Specifier, Multiple Inheritance*
- *Hybrid Inheritance, Virtual class*
- *RTTI, Downcasting*
- *Dynamic Casting syntax, Virtual Destructor*
- *Static variable & Function*
- *Namespaces*
- *Exception Handling*
- *Templates*
- *File Handling*
- *Mini Project using file Handling & Templates*

# 3

## Data Structures

- *Concept of Data Structures*
- *Algorithm complexity*
- *Searching and Sorting Techniques*
- *Stack*
- *Queue*
- *Linked List: Singly, Doubly, Circular*
- *Tree*
- *Graph*

4

## MySQL

- Database Normalization
- SQL Components and various commands
- Data definition Language
- Data Manipulation Language
- Select Statement, Groupby, having clause, Joins, Subquery
- String, Date and Number functions
- Views, Index
- PLSQL –Stored Procedure, Functions, Cursor, Triggers
- Transaction
- Case Study

5

## Web Programming

- HTML5
- CSS3
- JavaScript
- jQuery
- Bootstrap

6

## Core Java

- OOPs concepts
- Interface
- Final Variables
- Static Variables
- Exception Handling
- File Handling
- Collection Framework
- Multithreading
- Socket programming
- String
- Garbage collection
- Case Studies 3

7

## Advanced Java

- Application Stack, Layered application design
- Introduction to Servlets
- Servlet Structure
- Developing Full Stack Application

## 9

# Framework

- *Introduction to hibernate*
- *Hibernate query language*
- *Object relational mapping*
- *Association*
- *Collection mapping*
- *Integration with J2EE*
- *Overview of spring boot framework*
- *Spring core*
- *Spring DI*
- *Spring with JDBC*
- *Spring with DAO*
- *Typescript*
- *Angular*
- *Project*

## 8

# Angular

- *TypeScript fundamentals*
- *SPA explained*
- *Simple Angular application*
- *Building custom components*
- *Multi Component communication*
- *Directives*
- *Services*
- *Connecting with Spring Boot*

## 10

# Git & GitHub

- *Introduction*
- *Installation & Lifecycle*
- *Create & clone operation*
- *Perform,Review & commit changes*
- *Push,update,stash,move operation*
- *What is GitHub?*
- *Create a Repository*
- *Create a Branch*
- *Make a Commit*
- *Open a Pull Request*

11

## Credit System

- *Mock Interviews (Module wise)*
- *Technical quizzes*
- *Machine Test*
- *Project Presentations*

12

## Softskills

- *Introduction to Communication Skills*
- *Confidence Building and Public Speaking*
- *English Grammar*
- *Business English*
- *Advanced Communication Skills*
- *Group Discussion*
- *Resume Building and Cover Letter*
- *Interview Preparation*
- *Email Writing*
- *Dressing / Attire / Grooming*
- *Public Speaking and Presentation Skills*
- *Interpersonal Skills and Assertiveness*
- *Time Management*
- *Stress Management*
- *One to One Counseling Session for needy candidates*

13

## Aptitude

- *Averages and ages*
- *Percentages*
- *Ratio and Proportion*
- *Profit and Loss*
- *Partnership*
- *Speed, distance, and time*
- *Trains*
- *Boats and Streams*
- *Time and Work*
- *Pipes and Cistern*
- *Permutations and Combinations*
- *Probability*
- *Simple Interest*
- *Compound Interest*
- *Numbers and Divisibility Rules*
- *Allegations and mixtures*
- *Analytical Reasoning*
- *Linear sitting arrangement*
- *Circular sitting arrangement*
- *Parallel sitting arrangement*
- *Blood Relation*
- *Distance and Direction*
- *Coding and Decoding*

13

## Operating Systems

- *Operating Systems an Overview*
- *Types of Operating Systems*
- *Components of an Operating System*
- *An overview of File Systems*
- *Process and Memory Management*
- *User Management*
- *Operating System Security*
- *Device Drivers*
- *Installing an OS using Virtual Box*
- *Operating Systems in Cloud*


15

## Software Engineering

- *Introduction to Software Engineering*
- *Software Development Life Cycle*
- *SDLC Models*
- *Agile – SCRUM*
- *Requirement Analysis*
- *Project Management*
- *Design*
- *Introduction to UML*
- *Coding / Implementation*
- *Testing*
- *DevOps*

 Phone

9765577707 | 9049087707 | 9561191190

 +91 86000 07707

 @trainingfirstbit

 @FirstBitSolutions

 @FirstBitSolutions

 @1stBitSolutions

 @FirstBitSolutions

[www.firstbitsolutions.com](http://www.firstbitsolutions.com)