

Java for Full Stack Development



SYLLABUS



Rooman Technologies Pvt Ltd
#30, 12th Main, 1st Stage Rajajinagar,
Bangalore – 560010

E-mail: info@rooman.net
Phone: 7022020000

1. Basics of java

- Machine , assembler and high level language
- Assembler and compiler
- Platform dependency and platform independency
- Command line argument
- Operators

2. Pattern Programming

3. Data Types

- Integer
- Float
- Character
- Boolean

Typecasting

A. Implicit

B. Explicit

- Wrapper class

4. Arrays

- Regular array
- Jagged array
- Advantages and disadvantages of arrays.

5. Strings

- Different ways of creating strings
- Internal implementation of strings
- String comparison
 - A. Using values
 - B. Using references
 - C. Ignoring case
- String concatenation

Built-in function

- contains()
- endsWith()
- indexOf()
- charAt()
- startsWith()
- substring()
- toLowerCase()

- toUpperCase()
- Immutable strings
 - String Buffer
 - String Builder
- String Tokenizer

6. Variables

- Instance variable
- Local variable

7. Methods

- Different Types of methods with examples

8. Constructor

- Default constructor and parameterized constructor
- Constructor overloading
- Constructor chaining
- Difference between constructor and method

9. Oops Concepts

- Overview of object orientation
- Class
- Object
- Method overloading
- Access specifier
- Encapsulation
 - Use of static variable
 - Use of static block
 - Use of static method
- Inheritance
- Polymorphism
- Aggregation and Composition
- Abstraction
- Interface

10. Exception Handling

- Defining and throwing exception
- Custom exception handling
- Default exception handling
- Exception hierarchy

- Difference between errors and exception

11. Multithreading

- Single task operatingsystem
- Multi task operatingsystem
- Different ways of achievingmultithreading
- Types ofThread
 - A. User thread
 - B. Daemonthread
- Different states ofthread
- Disadvantages ofmultithreading

12. Synchronization

13. Collection

- Collection framework
- ArrayList()
- LinkedList()
- PriorityQueue
- ArrayDeque
- Maps
- Hashing
- Boxing and Auto-Boxing

14.Enum

15.Annotation

16.JDBC

- What is JDBC?
- JDBC Architecture
- Create Data
- Insert Data
- Delete Data
- Update Data
- Property file
- Statement Object
- Prepared Statement Object
- Callable Statement Object
- Batch File
- Transaction
- Stored Procedure
- BLOB & CLOB
- MetaData

17.Servlets

- Architecture of Web Application
- Deployment Descriptor
- doGet() & doPost()
- Request Dispatcher

- Send Redirect
- Session
- Cookie
- Servlet Context & Servlet Config
- Life Cycle of Servlet
- Filters

18.JSP

- JSP Architecture
- JSP life cycle
- Implicit Objects
- Session Tracking
- Page Redirect
- Exception Handling