



## FULL STACK JAVA DEVELOPER

CERTIFICATION PROGRAM

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## ABOUT ROOMAN

Rooman is an undisputed leader in the segment of employment linked training programs and IT certification with 21 years of rich experience and nationwide presence with over 198 centres pan India.

Rooman is an ed-tech company that provides job guaranteed programs. Unlike traditional institutes, Rooman provides concept visualisation using animations, tech-enabled world-class skilling ecosystem and the pure joy of learning.

Rooman has emerged to be a strong force in nation-building by also partnering with the government of India, NSDC, NASSCOM, SKILL INDIA and many such esteemed bodies working in the grass-root level to make India the skill capital of the world.

## Benefits of being a Full Stack Developer

### EASILY HIRED

With a wide range of skillsets, Full Stack Developers are always high in demand.

### HIGH PAY

Avg: 6.50 LPA - High: 23.64 LPA

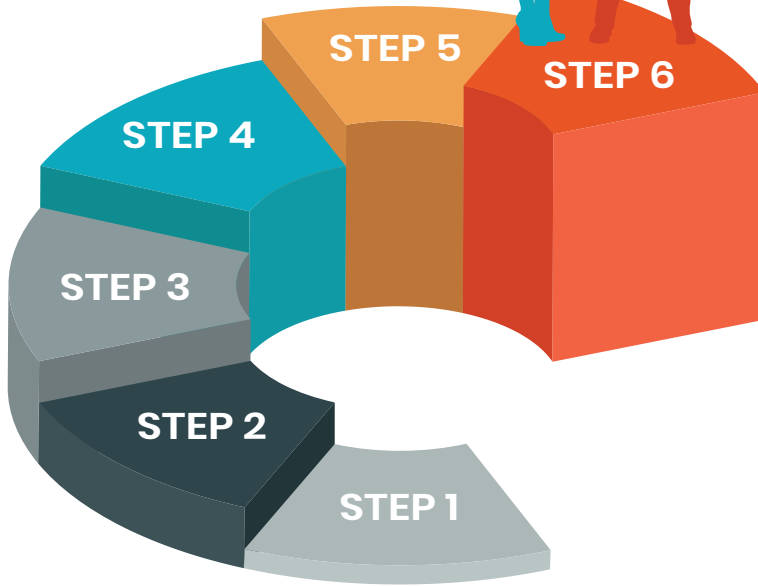
### ENORMOUS OPPORTUNITIES

With multiple skillsets, Full Stack Developers will constantly find rapid growth in their career.

Check Here

[Source: glassdoor](https://www.glassdoor.com)

# JOURNEY WITH US



1

GET ENROLL IN THE COURSE

4

ATTEND PLACEMENT DRIVES

2

CANDIDATE SCREENING

5

GET CERTIFIED

3

START LEARNING

6

GET PLACED &  
START WORKING

# LEARNING TRACK

01

## Learn Core Java

Be a master in language fundamentals & competitive programming

02

## Learn Advanced Java

Learn to code on the server-side and create dynamic web pages

03

## Learn Python

Get a wide range of opportunities to create your career in different specializations like Artificial Intelligence, Deep Learning, etc

04

## Learn HTML /CSS/ Javascript

Master to design, style & interact with the web pages.

05

## Learn MySQL

Understand the process of designing, managing, and handling structured data.

06

## Learn Springs & Hibernate

Learn to integrate different third party APIs in your application

07

## Build Project

Understand the complete process of building code, integrating modules, hosting an application, and maintaining it.

08

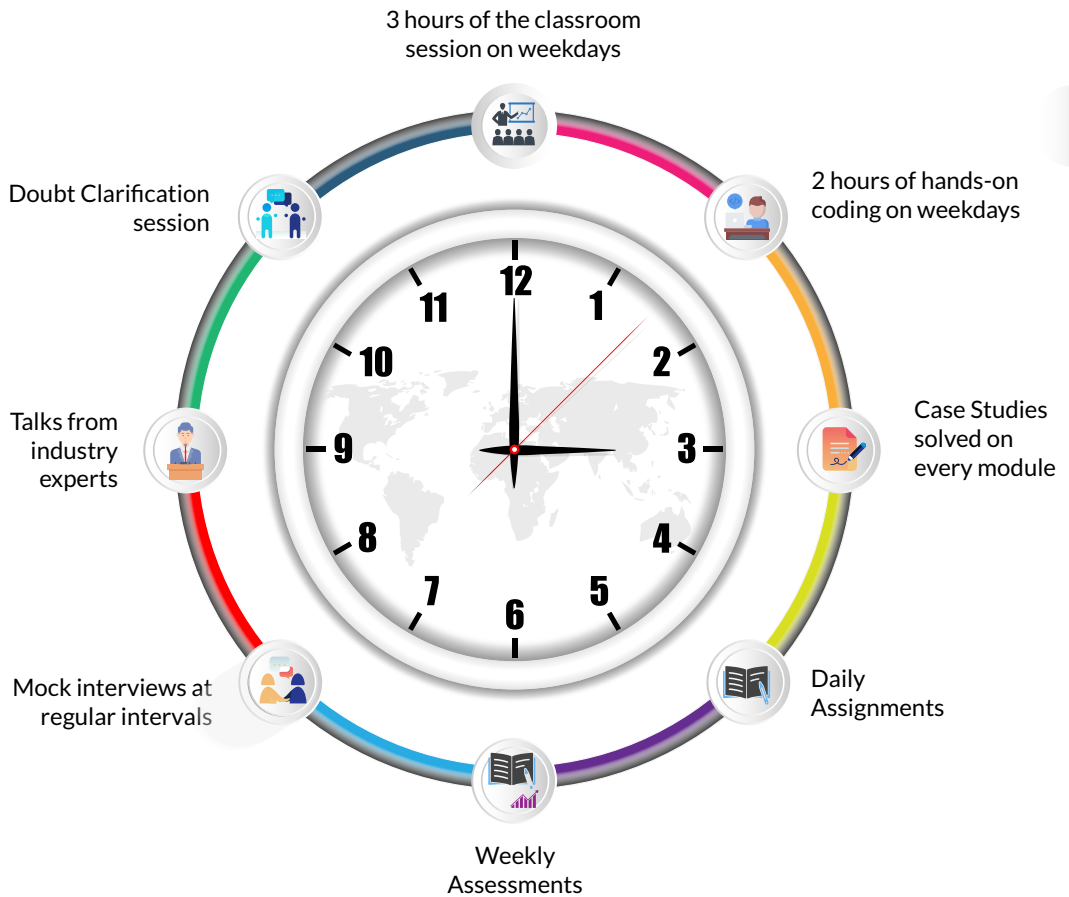
## Practice Aptitude

Build your logical and reasoning skill to crack the interviews

09

## Learn Interview Etiquette

Learn a set of manners that is accepted in a profession.



## A DAY/WEEK WITH US

## TOOLS & TECH



# DETAILED SYLLABUS

## Core Java:

Language Fundamentals  
Data Types  
Introduction Object orientation  
Incrementation and decrementation  
Pattern Programming  
Arrays  
Strings  
String tokenizer  
Methods  
Method overloading  
Constructor  
Encapsulation  
Static  
Inheritance  
Polymorphism  
Access specifiers  
Aggregation and Composition  
Abstraction  
Interface  
Exception Handling  
Multi-Threading  
Producer-Consumer  
Collection  
Maps  
Boxing & Auto Boxing  
File Handling  
Enum  
Annotations

## JDBC:

Introduction to JDBC  
Communication with backend and database  
Key Interfaces  
Steps for installing MySQL  
Connector  
Property File  
Update Query  
Batch File  
Dynamic queries

Transaction & Acid properties  
Store procedure  
In procedure  
In-Out procedure  
BLOB  
CLOB  
Meta-Data of ResultSet

## Servlets, JSP & JSTL:

Introduction to Servlets  
Difference between Web-Based and Distributed Application  
Difference between Static and Dynamic response  
Control flow of web.xml  
Service methods  
doGet and doPost method  
welcome file list  
set and getAttribute in Request Dispatcher  
Forward() and Include() in Request Dispatcher  
Send Redirect  
Difference between Request Dispatcher and Send Redirect  
Session management in java  
Cookies in java  
Servlet context and Servlet Config  
Life Cycle of a servlet  
Calling servlet using annotation  
Filters  
Filter Chaining  
Introduction to JSP  
Working of JSP Engine  
JSP Tags  
Implicit Objects of JSP  
Handling Exception in JSP  
JSTL Tags

## **Hibernate:**

Introduction to Hibernate  
Benefits of Hibernate  
Explanation of Hibernate.cfg.xml File  
The relation between hibernate and JDBC  
Program to Update Multiple lines (using HQL)  
CRUD Operations  
Writing SQL Queries in Hibernate  
Introduction to Mapping  
1:1 Mapping  
Property tag in 1:1 Mapping  
Unidirectional and Bidirectional in 1:1 Mapping  
Many-to-One Mapping  
Multiple Programs using 1:1 Mapping and Many-to-One  
Many-to-One Mapping (bi-direction)  
Many-to-Many Mapping  
Programs Using Joinable  
Lazy Loading and Eager Loading  
Lifecycle of Hibernate  
Difference between get and load

## **Spring:**

Feature of Spring, Spring Architecture,  
Inversion of Control  
Dependency Injection (Constructor Injection, Setter Injection)  
Bean Scope, Bean Lifecycle, IoC (annotation approach)  
Constructor Injection, Setter Injection, Field Injection (annotation approach)  
Bean Configuration using Java Code  
Spring MVC Architecture, First MVC code  
Configuration of Spring MVC  
Control Flow of Spring MVC, Handler Mapping  
RequestMapping  
Data Transfer between Controller & View  
RequestParam  
SpringMVC Form Tag Library  
SpringMVC Form Tag Library  
Spring Validation

## **Python:**

Interactive and script mode, OOPS principles  
Data Types  
Typecasting  
Functions  
Types of arguments  
Modules  
Command-line arguments  
Operators  
Loops  
Break and continue statements  
Lambda Functions  
Filter, Reduce, Map  
Global variable, Local variable  
Recursion  
Strings  
Regular expression  
Referential array  
List Operations  
List comprehension  
zip(),all(),any(), join() functions.  
Performance analysis of Data Types  
Tuple  
Set  
Set Comprehension  
Dictionary  
Collection Module  
OOPs  
Instance and static variables  
Decorators  
Closures  
Different Methods  
Design Principles of OOPs  
Encapsulation  
Inheritance  
Polymorphism  
Aggregation & Composition  
Abstraction  
Duck Typing  
Exception handling  
Loggers  
File handling  
Generators  
Process vs Thread  
Multi-Threading  
Python Database Programming

# DETAILED SYLLABUS

## HTML/CSS:

Introduction to CSS3, Basic Selectors  
Working with Sizes, Colors and Files,  
Styling Text  
Web Fonts, Gradients without  
Images  
Advanced Selectors, Lists, and  
Navigation Menus  
Exploring Generated Content  
Transforms and Transitions  
Animating Elements with Keyframes  
Styling Tables  
Elements Positioning, Working with  
Layouts  
Multi-Column Layouts with CSS3  
Dealing with Cross Browser Layouts  
Media Queries, Print CSS3

## MYSQL:

ER Diagrams  
Constraints  
Creating Database and Tables,  
Inserting Data, CRUD Commands  
CRUD, Basic queries  
Refining our Selections- Like  
Single row Functions  
Aggregate Functions  
Group by, Having, order by clauses  
Sub Queries.  
Joins  
Set Operators  
Normalization  
Views, Index, Export, and Import  
using Scripts.  
Stored procedures, Triggers

## BOOTSTRAP:

Introduction to Bootstrap framework  
Bootstrap CSS  
Bootstrap Layout Components  
Bootstrap JavaScript Plugins  
Using Bootstrap

## JAVASCRIPT:

Introduction to web development  
and JavaScript  
JavaScript Essentials  
JavaScript Essentials  
DOM Scripting  
DOM Scripting

## Sample Certificate



What STUDENTS Say about  
our TEACHING

