



Ains Computer Institute

# CORE JAVA & ADVANCED JAVA

**Course**



Master the Foundations, Excel with Innovation: Core and Advanced Java Unite



[ainscomputerinstitute.com](http://ainscomputerinstitute.com)

# OVERVIEW:

The Core and Advanced Java course provides a comprehensive overview of Java programming, covering both fundamental concepts and advanced topics to equip learners with a strong foundation and advanced skills in Java development. The course begins with Core Java, delving into the basics of object-oriented programming, syntax, and key libraries such as `java.lang` and `java.util`.

Participants learn about essential concepts like classes, objects, inheritance, polymorphism, and exception handling, along with input/output operations and multithreading. As the course progresses to Advanced Java, learners explore more sophisticated topics including advanced data structures, networking, database connectivity using JDBC, GUI development with Swing, and web development using servlets and JSP.

Through hands-on exercises, projects, and real-world examples, participants gain practical experience in building robust Java applications, mastering both foundational principles and advanced techniques to become proficient Java developers.



# NEED:

- Versatility
- Enterprise Applications
- Mobile Development
- Big Data and Cloud Computing
- Job Opportunities
- Global Demand



Java is a versatile programming language used in various domains such as web development, enterprise software, mobile applications, big data processing, and more.





# DEMAND:

**India:** India has a significant demand for Java developers, both in Core Java and Advanced Java. The country has a large IT industry with numerous software development companies, multinational corporations, startups, and government organizations that actively seek Java developers for various projects. With the rise of digital transformation initiatives, e-commerce platforms, fintech solutions, and mobile app development, the demand for Java skills remains robust in India.

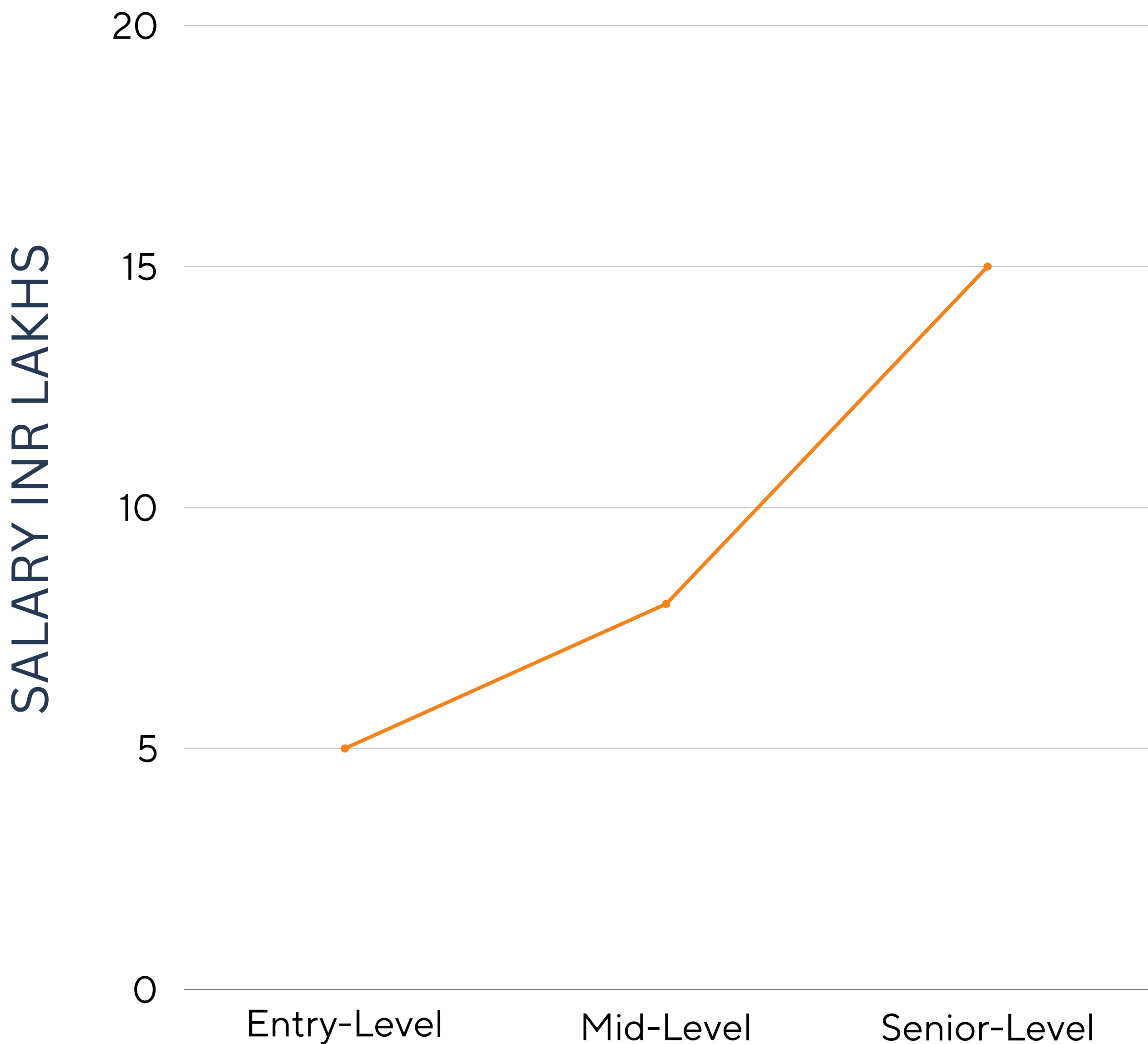
**Global:** Globally, Java continues to be one of the most widely used programming languages in various industries and sectors. While there's a growing interest in newer languages and frameworks, Java's stability, scalability, and vast ecosystem ensure a steady demand for Core Java and Advanced Java skills. Many global tech companies, financial institutions, healthcare organizations, and government agencies rely on Java for building enterprise-level applications, web services, mobile apps, and more.







# SALARY EXPECTATIONS:



**Global:** The United States, United Kingdom, Canada, Australia, and parts of Europe.

Entry-level Java developers in these countries can expect salaries ranging from **\$50,000 to \$90,000 per annum**.

Experienced developers with Advanced Java skills can earn salaries ranging from **\$90,000 to \$150,000 per annum** or more, depending on their expertise, the company they work for, and the cost of living in the region.

# Companies Hiring:





# WHY AiNS?



AiNS Computer Institute stands out as the premier destination for Core and Advanced Java courses due to its comprehensive curriculum, expert faculty, and hands-on learning approach. Our institute is renowned for its industry-aligned syllabus that covers both foundational concepts and advanced topics in Java programming, ensuring students receive a well-rounded education. With experienced instructors who are seasoned professionals in the field, students benefit from personalized guidance and mentorship throughout their learning journey. Additionally, our state-of-the-art facilities and cutting-edge technology infrastructure provide an immersive learning environment conducive to practical skill development. Whether it's mastering core Java fundamentals or delving into advanced Java concepts, AiNS Computer Institute empowers students with the knowledge and skills necessary to excel in the competitive world of software development. Join us and embark on a rewarding journey towards Java proficiency and career success.

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5.0 ★★★★★

Software training institute in Pune, Maharashtra



# BENEFITS at AiNS



1

**Expert Faculty**

2

**Industry-Relevant Curriculum**

3

**Career Guidance & Opportunities**

4

**Recognized ISO Certification**

5

**Real-World Data Analysis Projects**

6

**Access to Premium Tools and Datasets**

7

**Get Interview Ready & Resume Building**

8

**100% Job Assistance**





# Core Java Syllabus:

- What is Java
- History of Java
- Features of Java
- C++ vs Java
- Hello Java Program
- How to set path?
- JDK, JRE and JVM: Java Virtual Machine
- Java Variables
- Java Data Types
- Unicode System
- Operators
- instanceof operator
- Control Statements
- Java Control Statements
- Java If-else
- Java Switch
- Java For Loop
- Java While Loop
- Java Do While Loop
- Java Break- Continue
- Java Comments
- Java Object Class
- Naming Convention
- Object and Class
- Constructor
- Wrapper



**Duration: 2 Months**



- Java Array
- Java OOPs
- Concepts: Inheritance/Encapsulation
- Java OOPs Misc
- Java Recursion
- Method :Overloading/Overriding
- Covariant Return Type
- super /final/static /this keywords
- Instance Initializer block
- Runtime Polymorphism
- Dynamic Binding
- Object Cloning
- Abstract class
- Interface Abstract vs Interface
- Package Access
- Object /Math /Wrapper classes
- Java doc tool
- Command Line Arg

**Practicals  
+ Projects  
Topic-Wise**





# Advanced Java Syllabus:

- Java 8 Features
- INTRODUCTION OF advance Java
- Java Database Connectivity (JDBC)
- eXtensible Markup Language (XML)
- Common Gateway Interface
- Java Servlets
- Understanding the Deployment Descriptor (DD) / web.xml
- Using HTTP Session
- Web Application Security
- Security Constraints
- Java Database Connectivity (JDBC)
- Forward Action Tag
- JavaBeans
- Java Database Connectivity (JDBC)
- eXtensible Markup Language (XML)

**Duration: 2 Months**



- Common Gateway Interface
- Java Servlets
- Forward Action Tag
- Understanding the
- Deployment Descriptor (DD) / web.xml
- Using HTTP Session
- Web Application Security
- Security Constraints
- Spring Basics
- Spring Container
- JavaBeans
- Spring AOP
- Spring Data Access
- Spring O-R /mapping
- Spring Web MVC Framework
- Role of Dispatcher Servlet
- Introduction Hibernate
- Hibernate Configuration
- Hibernate Concepts
- Hibernate O-R Mapping
- Introduction Hibernate
- Manipulating and Querying
- Hibernate Query Language
- Criteria Queries

# **Practicals + Projects Topic-Wise**

