



**SKYPARK
ITECH**
"The Future of Innovation"

Java Software Development Internship

(15 Days | Practical-Oriented | Industry Ready)

INTERNSHIP SYLLABUS

Internship Objectives

- Build strong Java programming foundations
- Develop real-world console & mini applications
- Understand OOP, Collections, Exception Handling
- Prepare students to independently do final-year projects
- Improve coding confidence & logical thinking

Tools & Technologies

- Java JDK 8+
- IntelliJ IDEA / Eclipse
- Git & GitHub
- MySQL (basic)
- VS Code (optional)

DAY 1 – Java Fundamentals

- Java overview & applications
- JVM, JDK, JRE
- Data types, variables

Practical

- Install JDK & IDE

- First Java program
- Input/Output program

DAY 2 – Control Statements

- if, if-else, switch
- for, while, do-while

Practical

- Number checker
- Pattern printing
- Menu-driven program

DAY 3 – Methods & Arrays

- Methods & parameter passing
- 1D & 2D Arrays

Practical

- Calculator using methods
- Student marks system

DAY 4 – Strings & Wrapper Classes

Concepts

- String vs StringBuilder
- Wrapper classes

Practical

- String operations
- Palindrome checker
- Word counter

DAY 5 – Object-Oriented Programming (OOP)

- Class & Object
- Constructors

Practical

- Employee class
- Bank account program

DAY 6 – Inheritance & Polymorphism

- Inheritance types
- Method overriding

Practical

- Shape area calculator
- Vehicle inheritance example

DAY 7 – Abstraction & Interfaces

- Abstract classes
- Interfaces

Practical

- Payment gateway simulation
- Interface-based design

DAY 8 – Exception Handling

- try-catch-finally
- Custom exceptions

Practical

- ATM exception handling
- User-defined exception

DAY 9 – Collections Framework

- List, Set, Map
- ArrayList, HashSet, HashMap

Practical

- Student management system
- Data storage using collections

DAY 10 – File Handling

- FileReader, FileWriter
- Buffered streams

Practical

- File read/write program
- Log file creator

DAY 11 – JDBC & Database Connectivity

- JDBC architecture
- CRUD operations

Practical

- Java + MySQL connectivity
- Insert, update, delete data

DAY 12 – Mini Project Design

Activities

- Requirement analysis
- Flowchart & class diagram
- Project structure

DAY 13 – Mini Project Development

Implementation

- Core logic coding
- Database integration
- Error handling

DAY 14 – Testing & Enhancement

Activities

- Bug fixing
- Optimization
- Feature enhancement

DAY 15 – Project Presentation & Evaluation

Activities

- Live demo
- Viva & code review
- Internship assessment