



Internship Provided By:
DataInn Technologies

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About **Datalnn Technologies:**

Datalnn Technologies is an AI-focused IT consulting firm that helps organizations design, build, and scale production-ready AI solutions. The company specializes in AI agents, data platforms, and decision intelligence, enabling businesses to move from experimentation to real-world impact.

Industries Served:

- Finance & FinTech
- Healthcare & Life Sciences
- Legal & Professional Services
- Retail & E-commerce
- Manufacturing & Enterprise Operations

Core Expertise:

- Artificial Intelligence & Machine Learning
- Large Language Models (LLMs) & AI Agents
- Data Engineering & Analytics
- Cloud & Enterprise AI Architecture

Domain: Advance Java

Mode: Remote

Internship Period: 18-November-2025 To 18-February-2025

Technologies Actively Working On:

- Java
- JDBC
- PostgreSQL
- React JS
- JPA
- SDLC Documentation
- Git/GitHub
- JSON APIs
- JWT Authentication...

Tasks Assigned:

Week-1-Tasks:

- Understanding how to **create a simple database, tables, insert data, and write basic SQL queries.**
- Learn how to connect Java to PostgreSQL and perform very simple **CRUD operations.**
- GitHub Setup & Push: **Version control** and code publishing.

- Understanding and implementing **Object Oriented Programming** concepts.
- Creating modules like BankAccount, StudentMGMT, EmployeeMGMT, etc.
- Implementing **JDBC CRUD operations** via OOPs concepts.

Week-2-Tasks:

- **Implementing Collection built-in data structures such as:**
 - ArrayList<> ◦ HashSet<>
 - TreeSet<> ◦ LinkedList<>
 - Map<> ◦ HashMap<>
 - TreeMap<> ◦ LinkedHashMap<>
- **And implementing problems based on above Collections, such as:**
 - Browser Tab History Behavior ◦ Exam Submission Behavior
- Understanding which Collection data structure is efficient for a given scenario / problem.
- **Implementing Iteration Classes and Methods, which included concepts like:**
 - Iterator<> ◦ ListIterator<> ◦ ForEach Iterator
 - Fail-Fast Iteration ◦ Fail-Safe Iteration

Week-3-Tasks:

- Understanding Types of **built-in exceptions** and **user-defined exceptions**, when are they thrown in order to ensure smooth execution of a program / software.
- **Creating custom user-defined exceptions such as:**
 - InsufficientBalanceException ◦ InvalidAgeException ◦ InvalidLoginException
- **And using these exception with modules below:**
 - BankAccount ◦ RatedRMovie ◦ LoginValidation
- **Implementing File-Handling Reader Classes and Methods such as:**
 - File ◦ FileReader ◦ BufferedReader
- **Implementing File-Handling Writer Classes and Methods such as:**
 - FileWriter ◦ BufferedWriter
- **And using above File-Handling concepts to implement behaviors like:**
 - Log Audit Trails ◦ Filtering .csv/.txt Files ◦ Formatting Output

Week-4-Tasks:

- Understanding how **SDLC documentation is done and implemented**. And creating a hypothetical project documentation for "SmartClinic 2.0" and **understanding concepts such as:**
 - Feasibility Study
 - Software Requirement Specification (SRS)
 - System Study
 - Time & Resource Estimation
 - Workflow Diagrams
 - Functional Requirements (FR)
- Attempt to create a **Real Industry-Level documentation** for a project called "School Management System" in which assignments, exam time-tables, notifications, attendance, etc. will be done and digitally recorded. **Documentation included were:**
 - Business Requirement Document (BRD)
 - Requirement Documentation
 - Software Requirements Specification (SRS)
 - Risk & Mitigation Analysis
 - ER Diagram
 - Workflow Diagram
 - UI Wireframes
- And focusing on creating detailed **Module Based Functional Requirements (FR) Documentation** which included describing module specific users, inputs / outputs of that module, and by which user is the module most used by.

Week-5-Tasks (Ongoing):

- **Objective:**

Build a basic **REST API** using **Spring Boot** that performs CRUD operations on a database table.

THANK YOU FOR YOUR TIME

