

Internship Final Report

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University : Sri Venkateswara College Of Engineering And Technology

Major : Computer Science

Internship Duration : September 1st, 2025 - September 30th, 2025

Company : ShadowFox

Domain : Java Development

Mentor : Mr. Bharatwaaj

Coordinator : Ms.Kalai maha

Objectives

My primary objectives for this internship were to:

1. Develop a comprehensive understanding of Java development methodologies and best practices.
2. Gain hands-on experience by working on real world projects ranging from beginner to Advanced levels.
3. Strengthen my skills in object-oriented programming (OOP), database integration, testing and backend development using Java and Spring Boot.

Tasks and Responsibilities

During my internship , I worked on the following projects and tasks :

➤ Beginner Tasks :

- Implemented anEnhancedConsole-Based Calculator with advanced features like history tracking and error handling.
- Developed a Simple ContactManagement System to add, search, update, and delete contact information usingfilehandling and collections.

➤ Intermediate Tasks :

- Created a Bank AccountManagement System that supported deposits, withdrawals, and balance checks, along withJUnit test cases for validation.
- Designed a Library Management System integrated with SQLite to perform CRUD operations for books and users.

➤ Advanced Tasks :

Built an Online Banking System with REST API (SpringBoot) :

- Developed RESTful endpoints for account management, balance check, and transactions.
- Secured APIs using authentication and authorization mechanisms.
- Performed API testing and validation using Postman for different scenarios.

- Implemented transaction history with pagination and error handling for invalid.

Learning Outcomes

- **Technical Proficiency** : Strengthened knowledge of Java, OOP, exception handling, collections, database integration (SQLite), and REST API development with Spring Boot.
- **Testing & Debugging** : Gained hands-on experience with JUnit and debugging tools to ensure code reliability.
- **Problem-Solving** : Improved ability to analyze and design scalable solutions for real world scenarios.
- **DataBase Skills** : Learned database connectivity in java using JDBC and ORM concepts in Spring Boot.

Challenges and Solutions

- **Database Setup** : In the beginning, connecting Java applications with SQLite was tricky. With some practice and guidance, I learned how to configure JDBC properly and fix query errors.
- **Spring Boot Configuration** : While working on the online banking system, setting up dependencies and testing APIs was confusing. Step by step practice with Maven and Postman helped me overcome it.

Conclusion

My internship in Java Development provided a structured learning path, starting from beginner-level console projects to advanced Spring Boot applications. This progression allowed me to gradually strengthen my programming skills, problem solving ability, and understanding of real-world software development. The experience has prepared me well for future roles in software engineering and backend development.

Acknowledgments

I would like to sincerely thank ShadowFox for providing me this valuable internship opportunity. My gratitude goes to my coordinator Kalai Maha for their constant guidance and support. I am also thankful to my peers and teammates who helped me during the completion of these projects.

This report reflects the integration of academic knowledge with practical skills gained during the internship, highlighting my journey of learning, growth, and development in the field of Java development.