

Internship Final Report

Student Name: Siri Dayanand

University: New Horizon College Of Engineering

Major: Computer Science & Engineering

Internship Duration: October 1st, 2024 - October 31st, 2024

Company: ShadowFox

Domain: Java Development

Mentor: Mr. Bharatwaaj

Coordinator: Mr. Aakash

Objectives

During my internship, I aimed to achieve the following objectives:

1. Acquire a thorough understanding of Java development best practices and methodologies.
2. Gain practical experience in developing Java applications with various functionalities, including GUI and console-based applications.
3. Enhance my skills in using Java development tools and technologies, focusing on frameworks like JavaFX and testing frameworks like JUnit.

Tasks and Responsibilities

Throughout my internship, I engaged in several key tasks:

- **Enhanced Console-based Calculator:** Developed a console-based calculator that supports basic arithmetic operations, scientific calculations, and unit conversions. This project improved my understanding of Java syntax, methods, and error handling.
- **Simple Contact Management System:** Designed and implemented a command-line contact management system that allows users to add, view, update, and delete contacts. This task involved utilizing basic CRUD operations and data structures such as ArrayLists.
- **Bank Account Management System with Unit Testing:** Extended an existing bank account management system by implementing unit tests using JUnit. This involved writing test cases for functionalities like deposits, withdrawals, balance inquiries, and transaction history.
- **Inventory Management System with Basic GUI:** Created an inventory management system using JavaFX, incorporating GUI components and functionalities such as adding, updating, and deleting inventory items.

Learning Outcomes

- **Technical Skills Development:** Gained hands-on experience with Java development tools, object-oriented programming, GUI design, and unit testing principles.
- **Software Development Lifecycle Understanding:** Developed a comprehensive understanding of the software development lifecycle, from gathering requirements and design to implementation and testing.
- **Problem-Solving Skills:** Enhanced my ability to identify and resolve issues during development, which improved application functionality and performance.
- **Professional Growth:** Strengthened my skills in team collaboration, clear communication of technical concepts, and project management within a fast-paced work environment.

Challenges and Solutions

- **Time Management:** Juggling multiple projects and deadlines was challenging. I tackled this by creating a structured schedule, prioritizing tasks, and ensuring I stayed organized.
- **Learning Unit Testing:** Implementing unit tests for existing code was initially difficult. I sought mentorship and conducted research on best practices, which ultimately improved my understanding and application of testing methodologies.

Conclusion

My internship at ShadowFox was a valuable experience that provided me with hands-on opportunities in the field of Java development. The exposure to various aspects of application development and real-world problem-solving significantly enhanced my skills and knowledge. This experience has reinforced my interest in pursuing a career in software development and prepared me for future challenges in the industry.

Acknowledgments

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