Internship Final Report

Name: AravindKumar G S

Domain: Core Java

Internship Period: 1st March 2025 – 31st March 2025

College: Meenakshi College of Engineering

Project Title: Banking Information System

# Preface

This report outlines my project and learnings during the internship under the Core Java domain. The focus of the internship was to build a practical Java-based banking information system that simulates basic banking operations such as account creation, deposit, withdrawal, and balance inquiry.

# Introduction

As part of the Upskill Campus internship in collaboration with UCT and The IoT Academy, I developed a Java-based banking information system. This application introduces core programming concepts such as data structures, conditional logic, and input/output handling in Java.

# Problem Statement

Many educational systems lack beginner-level projects that demonstrate real-life scenarios such as banking. This project was designed to provide a hands-on solution to simulate a simple banking environment for learning purposes.

# Existing vs Proposed System

Traditional systems are complex and built with frameworks. The proposed solution is simple, CLI-based, and focuses on learning fundamental Java constructs like Maps, loops, conditionals, and exception handling.

# Design and Architecture

The design involves using a HashMap to store account numbers and balances. A menu-driven loop handles user interactions. Each functionality (open account, deposit, withdraw, check balance) is encapsulated in a separate static method.

# Implementation – Weekly Summary

Week 1: Java setup, explored syntax and variables  
Week 2: Started banking system logic for deposit and withdrawal  
Week 3: Implemented all methods and handled edge cases (invalid account, low balance)  
Week 4: Tested application thoroughly and prepared the final report

# Testing and Output

The code was tested using sample inputs to verify proper working of all functionalities. Screenshots of outputs (account creation, deposit, withdrawal, etc.) have been added to the GitHub repository.

# Learnings

- Java basics: data types, control flow, loops  
- Using collections like HashMap  
- Exception handling  
- Menu-based applications  
- Modular programming and testing

# Future Scope

- Add database integration for persistent storage  
- Extend with GUI using JavaFX or Swing  
- Add login/authentication features for security

# GitHub Links

Code Link: https://github.com/aravindkumar/upskillcampus/blob/main/BankingInformationSystem.java

Report PDF: https://github.com/aravindkumar/upskillcampus/blob/main/BankingInformationSystem\_AravindKumar\_USC\_UC.pdf

# Conclusion

This internship allowed me to apply Java concepts in a real-world simulation. The banking information system was a great learning exercise in building logic, modular programming, and understanding how simple applications are built.