



Innovation & Entrepreneurship Hub for Educated Rural Youth (SURE Trust – IERY)

Banking Microservices (Capstone Project)

**The domain of the Project: Banking System using Microservices
Architecture**

COURSE NAME:- Core Java

**Team Mentor (and their designation): Alur Mohammed
Yaseer (Junior Software Engineer)**

Team Members:

Ms. Khushi Kumari

Period of the project:- 26th sept 2025 to 20th Nov 2025



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Declaration

The project titled “Banking Microservices (Capstone Project)” has been mentored by Alur Mohammed Yaseer, organised by SURE Trust, from 26th sept 2025 to 20th Nov 2025, for providing hands-on experience in working on industry relevant projects that would take them closer to the prospective employer. I declare that to the best of my knowledge the members of the team mentioned below, have worked on it successfully and enhanced their practical knowledge in the domain.

Team Members:

Ms. Khushi Kumari

Mentor’s Name :- Alur Mohammed Yaseer
Junior Software Engineer

Prof. Radhakumari
Executive Director & Founder
SURE Trust



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Executive Summary

The Banking Microservices project is a capstone project designed to simulate real-world banking operations using a microservices architecture. Each banking function such as account management, transactions, and authentication is developed as an independent service, ensuring scalability and fault tolerance.



Introduction

- **Background**

Traditional monolithic banking systems face scalability and maintenance challenges. Microservices solve these issues by breaking applications into independent services.

- **Problem Statement**

To build a scalable, secure, and modular banking system using microservices.

- **Scope and Limitations**

Backend-focused

No UI

Simulated transactions

- **Innovation Component**

Use of microservices, API communication, and service isolation.



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Project Objectives

- Understand microservices architecture
- Implement independent services
- Learn inter-service communication



Methodology and Results

- **Technology Used**

- Java
- Spring Boot
- REST APIs
- Microservices Architecture

- **Tools Used**

- IntelliJ IDEA
- Postman
- GitHub

- **Project Architecture**

- API Gateway → Microservices → Database

- **Results**

- The system successfully performs account creation, balance inquiry, and transactions.

- **GitHub Link**

<https://github.com/sure-trust/KHUSHI-KUMARI-g19-java/tree/main/Final%20capstone%20project>



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Learning and Reflection

- Deep understanding of microservices
- Learned scalable system design
- Improved industry-ready backend skills



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Conclusion and Future Scope

1. Frontend dashboard
2. Docker & Kubernetes deployment



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