# Apica: Java Backend Assignment

#### Goals

- 1. Implement a Spring Boot microservice responsible for user management.
- 2. Implement another Spring Boot microservice responsible for journaling user events.

## Requirements

#### **User Service**

- Include functionalities for user registration, user details retrieval, updating and deleting user information, and managing user roles. (You may use any database to store the user details)
- Expose RESTful API endpoints for all CRUD operations.
- Integrate Spring Security for role-based authentication and authorization.
- Publish user-related events to a Kafka topic named user-events for journaling.

#### **Journal Service**

- Consume events from the user-events Kafka topic.
- Log the received events and persist them in a database of your choice.
- Expose RESTful API endpoints to retrieve journaled user events.
- Implement role-based access control for accessing journal data.

### **Good to Have**

- Unit tests for individual components.
- Integration tests across services or modules.

# **Documentation Expectations**

- Provide a docker-compose.yml file to run the entire system including dependencies like Kafka and the databases.
- Document all available REST API endpoints in a README or API specification file.
- Include clear instructions on how to run, test, and interact with the system locally.

### **Submission Guidelines**

- Include all source code in a public or private Git repository.
- Add a README file explaining setup, APIs, architecture decisions, and how to test the application.
- If any assumptions were made, document them clearly.