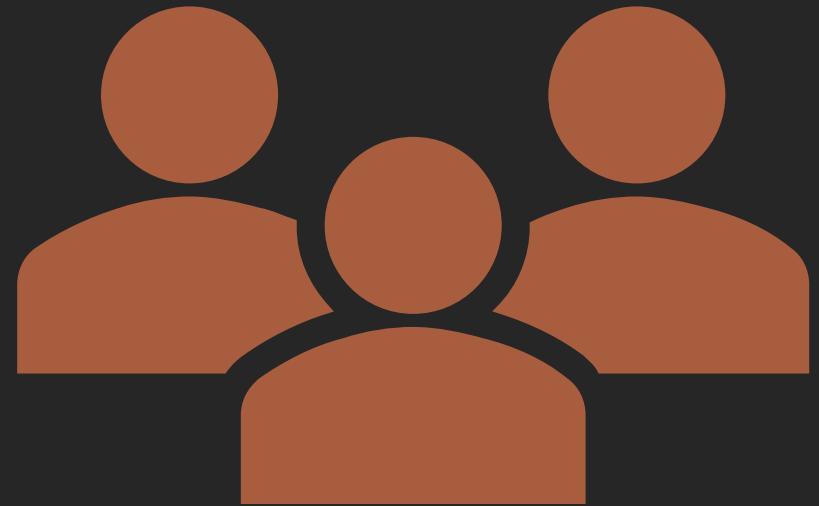# Banking Software Design Project

Team Members & Roles

- Sasa Neacsu – Business Analyst & QA Engineer
- Mihaela Ilinca Sandru - UI/UX Designer & DevOps Engineer
- Alexandru Botea- Solution Architect
- Iustin Gabriel Ivan – Frontend Developer
- Fabian Filip – Backend Developer

Architecture Patterns

- Monolithic Architecture
- Serverless Architecture

Reasons for the options selected

- Small team, Simple to operate,Moderate complexity,Quick implementation
- Runs when needed, scalable

Technology Stack

Frontend : HTML, CSS , React

Backend : Java, Spring Boot

Database: PostgreSQL

Solution Architecture

The application consists of a mobile client developed in React, which communicates through a REST API exposed by a Java Spring Boot backend. The backend handles user authentication, product catalog management, shopping cart operations, order processing, and payment simulation. Data is persisted in a relational PostgreSQL database. Communication between the client and server is performed over HTTPS, using JSON as the data exchange format.

Main Components :

Mobile App (React)

API Gateway / Backend REST (Spring Boot)

Payment Service (ex: Stripe)

PostgreSQL Database

Flow of Checkout/ Sequence Diagram