

# Advanced distributed systems- Exercise 1

## Microservice or Service-Oriented Architecture (SOA) based application

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Design and implement an application based on **Microservices** or **Service-Oriented Architecture (SOA)** principles. The application must include **at least four distinct services**, each responsible for a specific functionality. All services should be **containerized** to support simplified deployment, portability, and scalability.

### **Deliverables:**

Your final submission should include the following components:

1. **Application Services:**
  - Docker images for all developed services/microservices+ a docker-compose.yml
2. **Documentation (PDF):**
  - A clear and detailed overview of your application.
  - An architectural diagram illustrating the system's overall structure, including all services/microservices and their interdependencies.
  - A thorough explanation of the technologies, frameworks, and programming languages used.
3. **Source Code:**
  - Complete source code for each individual service/microservice, organized and properly documented.