Transactions in Microservices
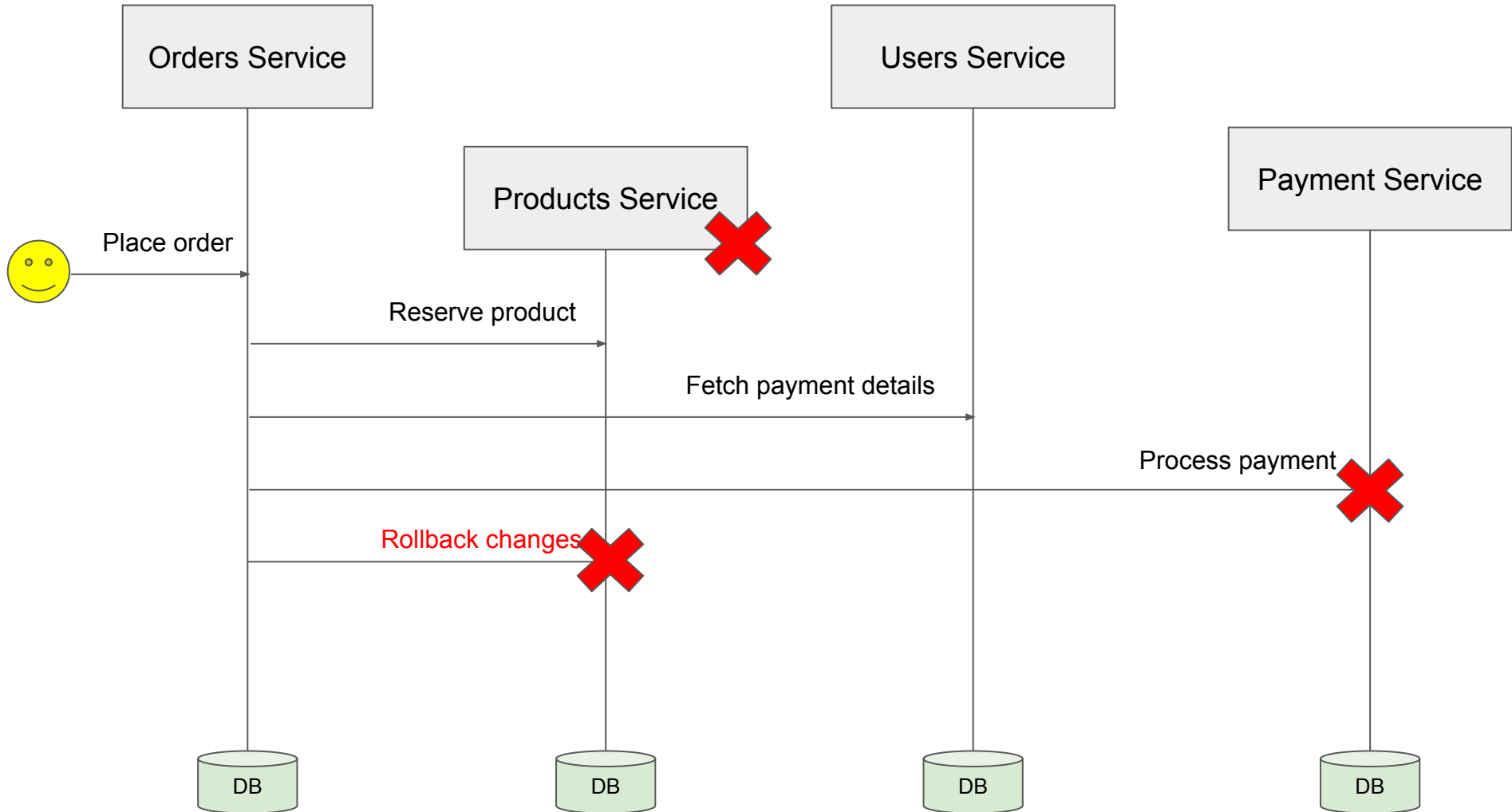
Introduction

Single Monolithic Application

Orders Service class

Products Service class

Users Service class

Payments Service class

Start transaction

- Check inventory
- Create order
- Reserve product
- Fetch user payment details
- Process & record payment details
- Complete order

End transaction

DB
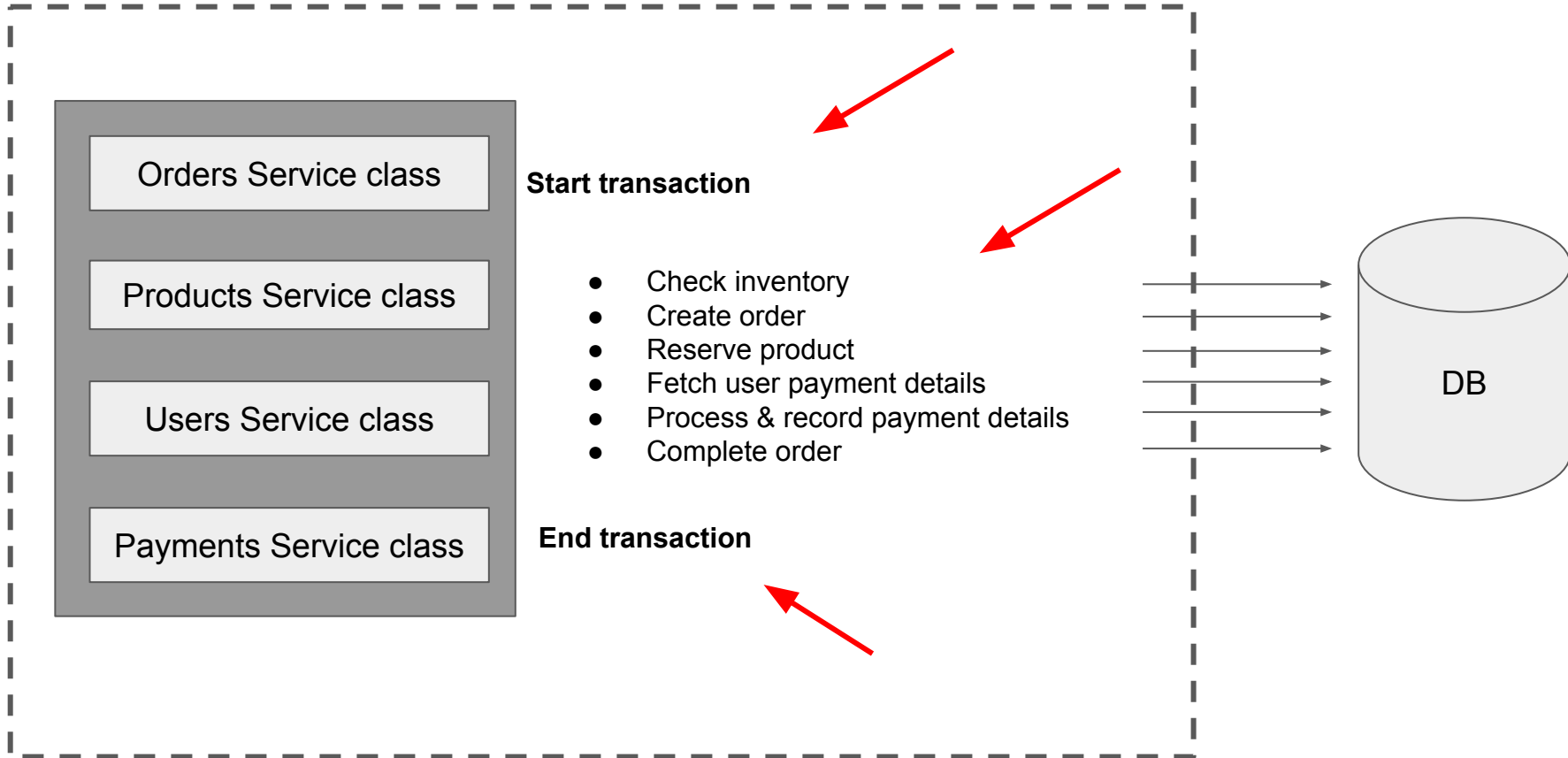
ACID Transactions

- **A**tomicity
- **C**onsistency
- **I**solation
- **D**urability

Orders Service

Products Service

Users Service

Payment Service

Place order

Reserve product

Fetch payment details

Process payment

Rollback changes

DB

DB

DB

DB

SAGA Design Pattern

- Choreography-Based

- Orchestration-Based