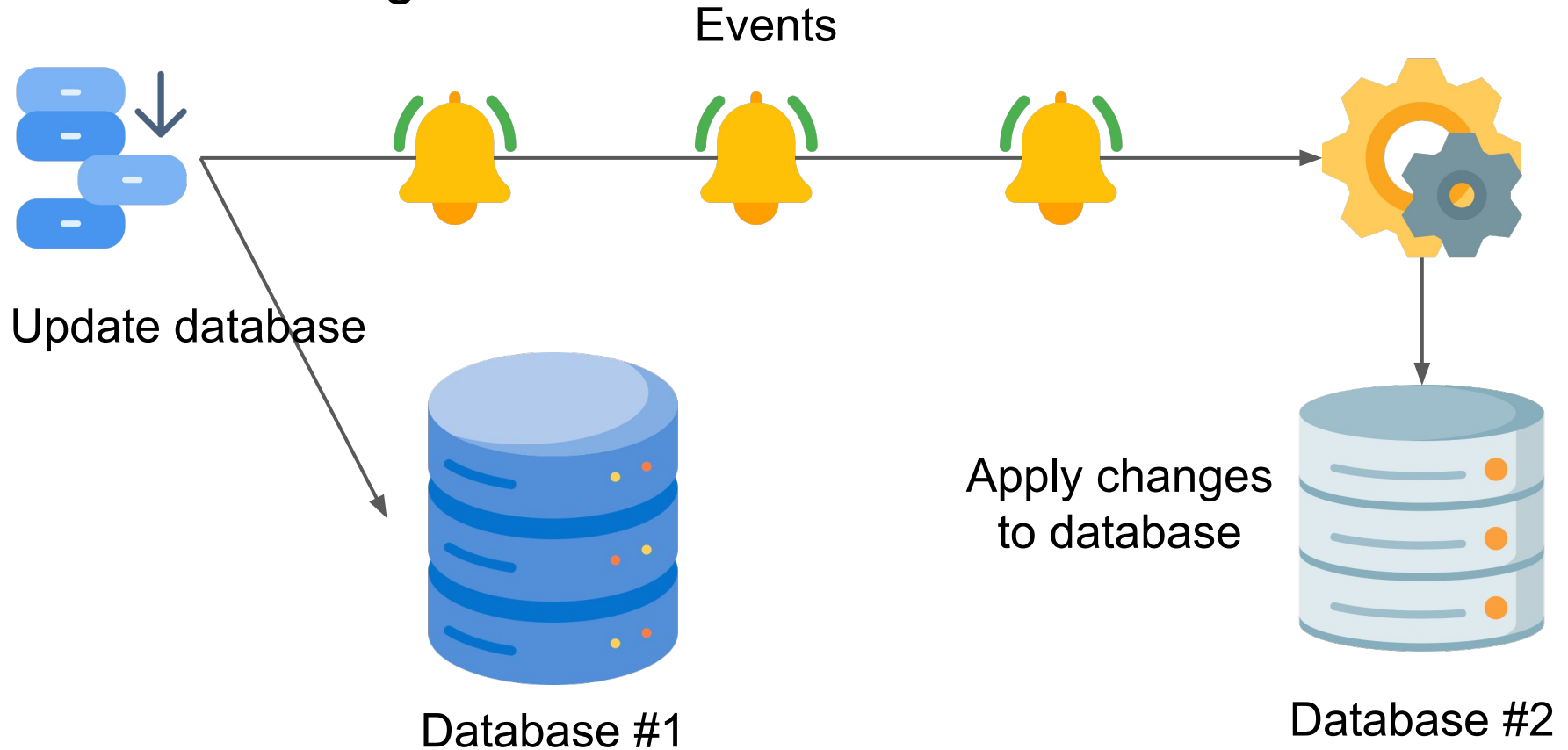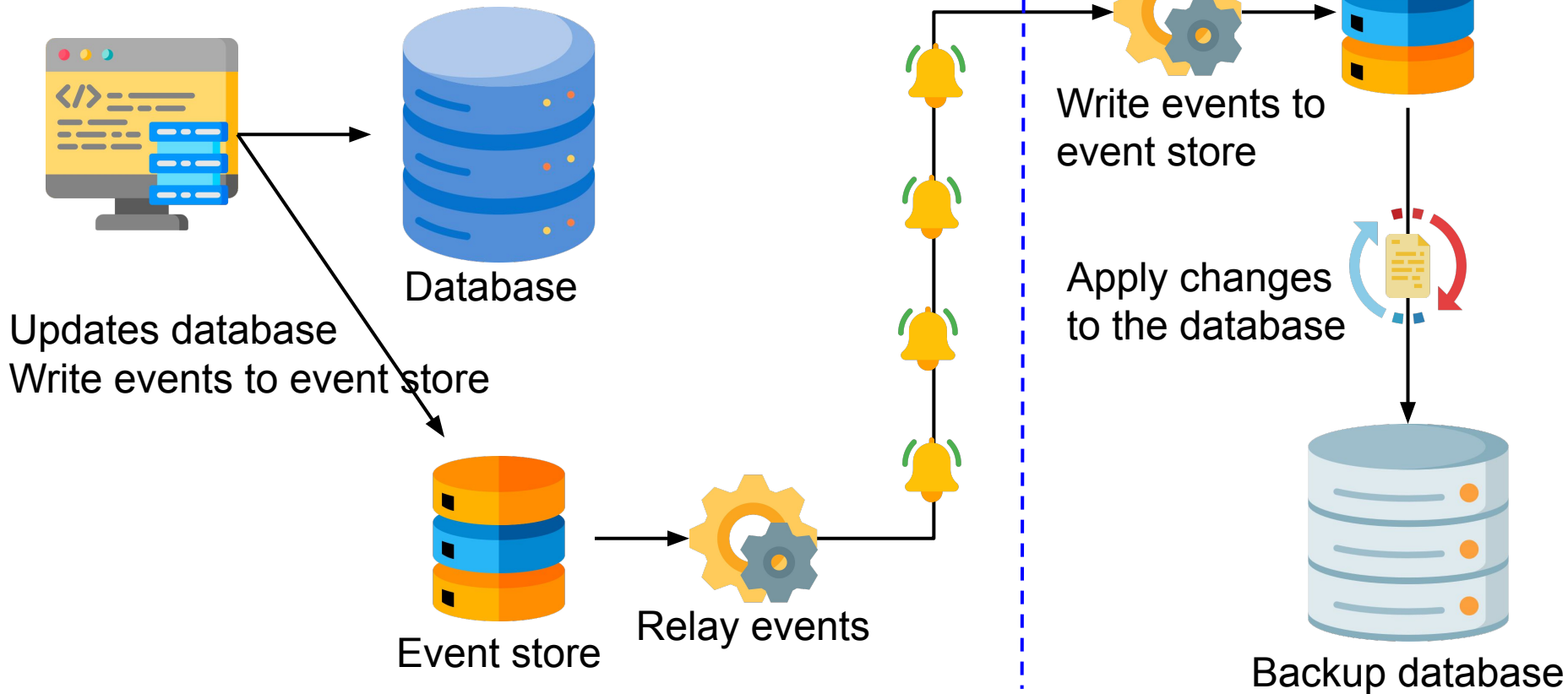# Event Sourcing

What is it?

- A software architecture
- The state of a system is determined by a sequence of events.
- Storing just the current state of the data, event sourcing involves storing all the events that lead to the current state.

# Event Sourcing

Events

Update database

Apply changes
to database

Database #1

Database #2

Architecture

Updates database
Write events to event store

Database

Event store

Relay events

Different locations

Write events to event store

Event store

Apply changes to the database

Backup database

# Events

 `insert into customer(name) values ("fred")`


```
event_id: abc123
timestamp: <timestamp>
ops: ADD
fields:
-  name = fred
table: customer
```

# Task

Set up 2 databases for the e-commerce application
- Main database and backup

Complete the e-commerce application

Use eventual consistency strategy to keep the backup database in sync with the main database

You may create any additional Spring Boot application