Öffline

Offline Public Transport Application

App Idea

- App for public transport information
- Also usable in offline situations like…
  - … if you are in a underground disco
  - … if you are out of traffic
  - … if you are in rural environment

- Solution:
  - Download of selected schedules for offline usage
    → Automatic update whenever Wi-Fi is available
  - Download of schedules for closed by stops

Challenges

Offline Challenge

Energy Challenge

Challenges

Offline Challenge

- Solution:
  - Download and save in DB (SQLite)
    - → Offline Availability
  - Automatic update of saved connections

Energy Challenge

- Solution:
  - Updates only with WiFi connection
  - → No non-stop usage of energy for traffic

Context Adaption
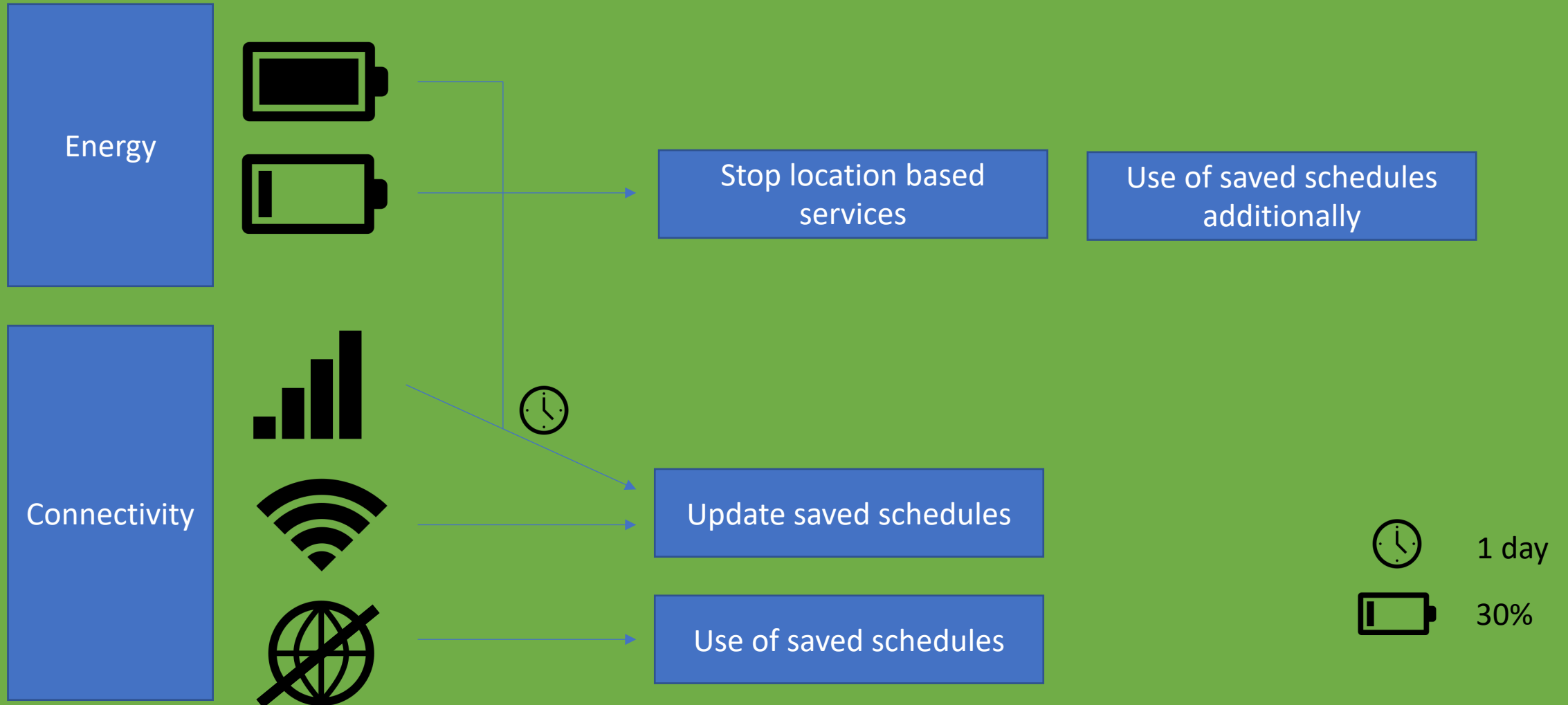
Location

Fast movement

Slow movement

No movement

- Traveling with vehicle
- Frequent update of location not useful
- ÖPNV schedules close by not needed

- Highly probable pedestrian
- Frequent update of location useful
- ÖPNV schedules close by useful

- No change of location
- Frequent update of location not useful
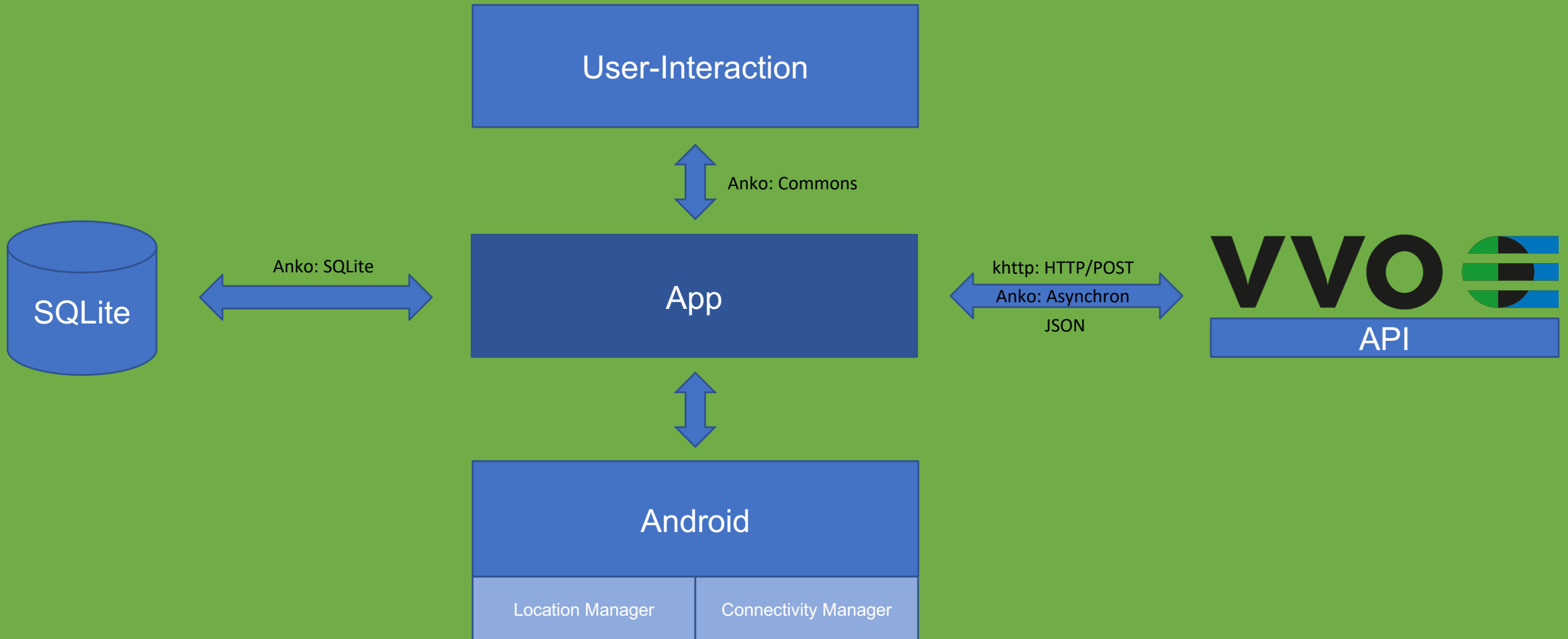- Frequent update of schedules not useful

Context Adaption

Technologies

GitHub
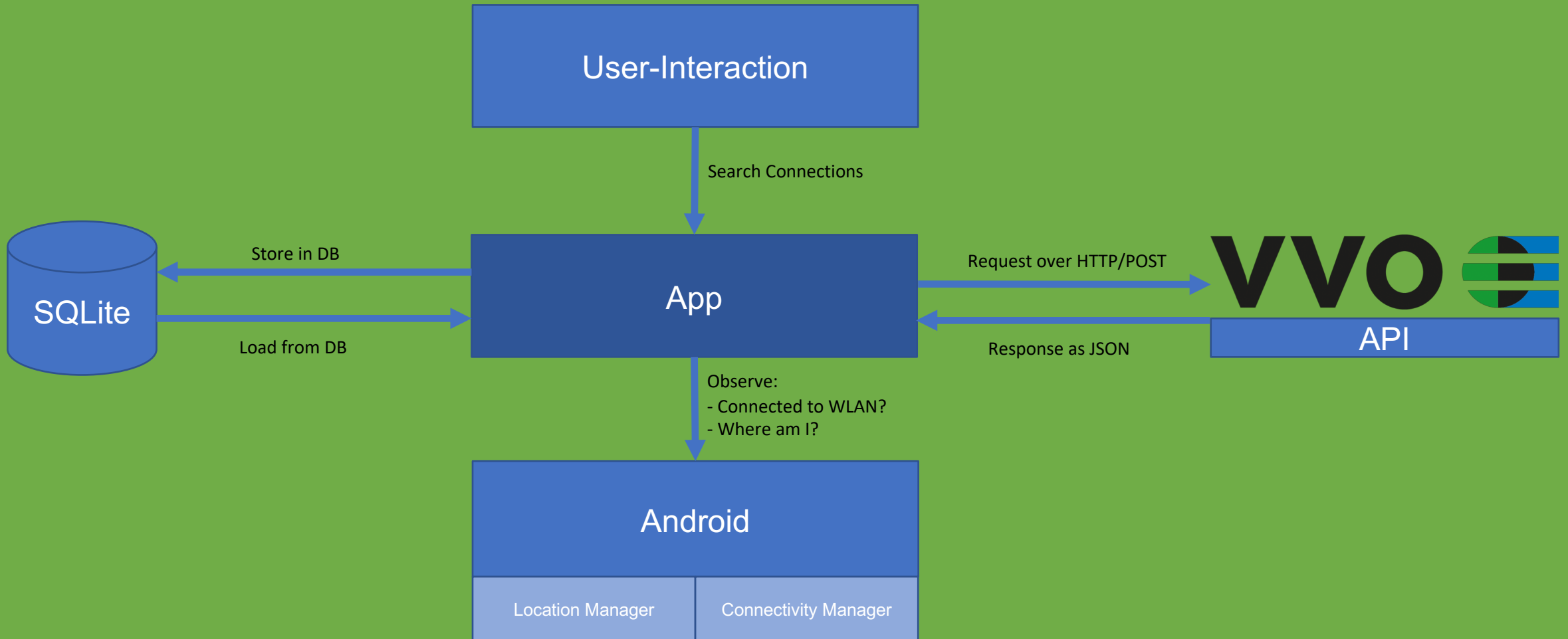
Anko

khttp

VVO

Web-API

SQLite

Architecture

User-Interaction

Anko: Commons

SQLite

Anko: SQLite

App

khttp: HTTP/POST
Anko: Asynchron
JSON

VVO

API

Android

Location Manager

Connectivity Manager

Architecture II

Roadmap

Initial stage

- Practise handling with Kotlin
- First draft of design
- Implementation of DVB-Api (Problem: Asynchronity)

Current stage

- Return of values of asynchron tasks
- SQLite
- Implementation of GPS

**Final stage
(from 01.01)**

- Context/Adaption mechanisms
- Refinement of UI
- Debugging
- Final Version