ELEC-E8408

HIKING WATCH

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Contents

General overview

Watch

 Hub

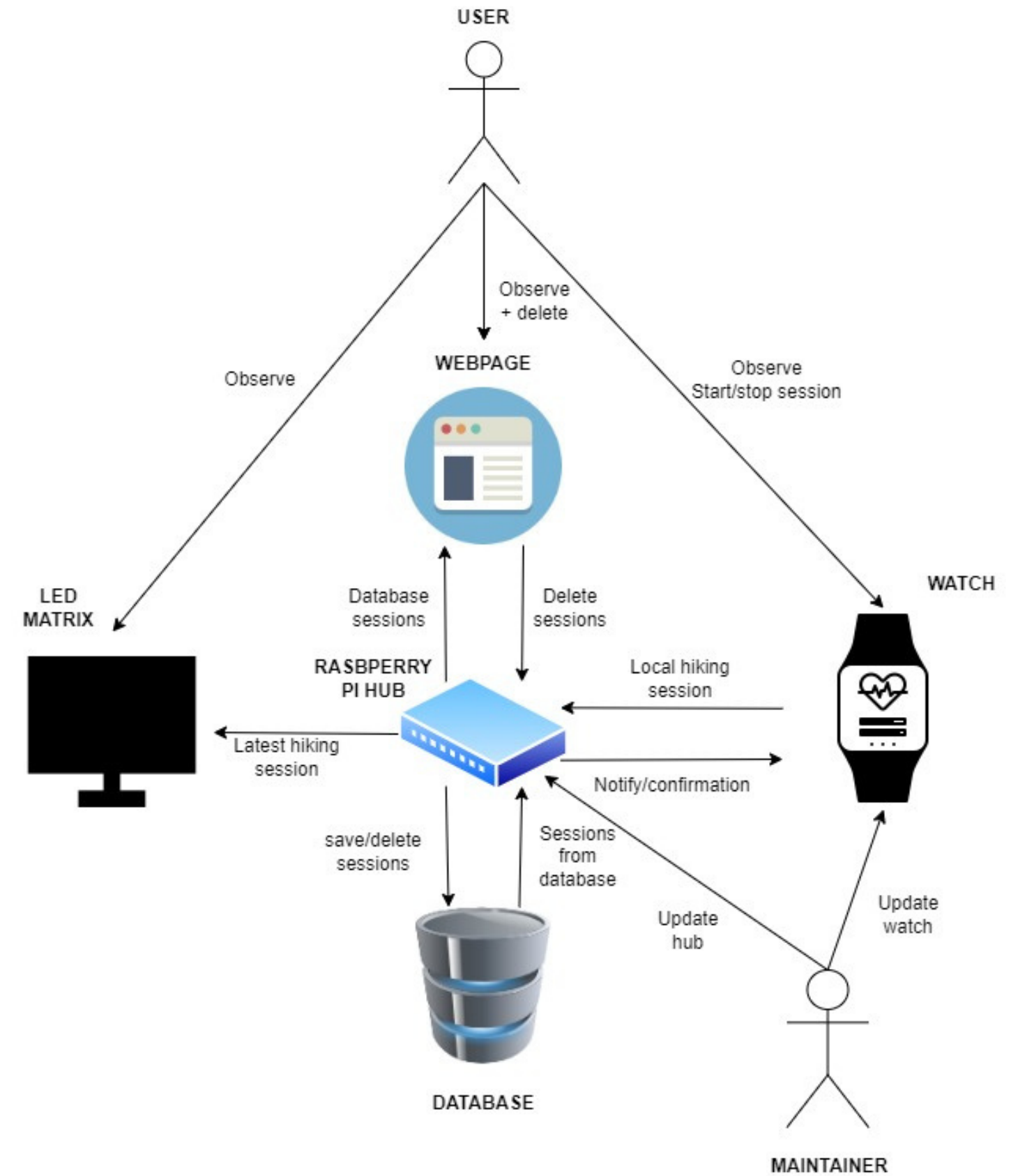Database

LED Matrix Display

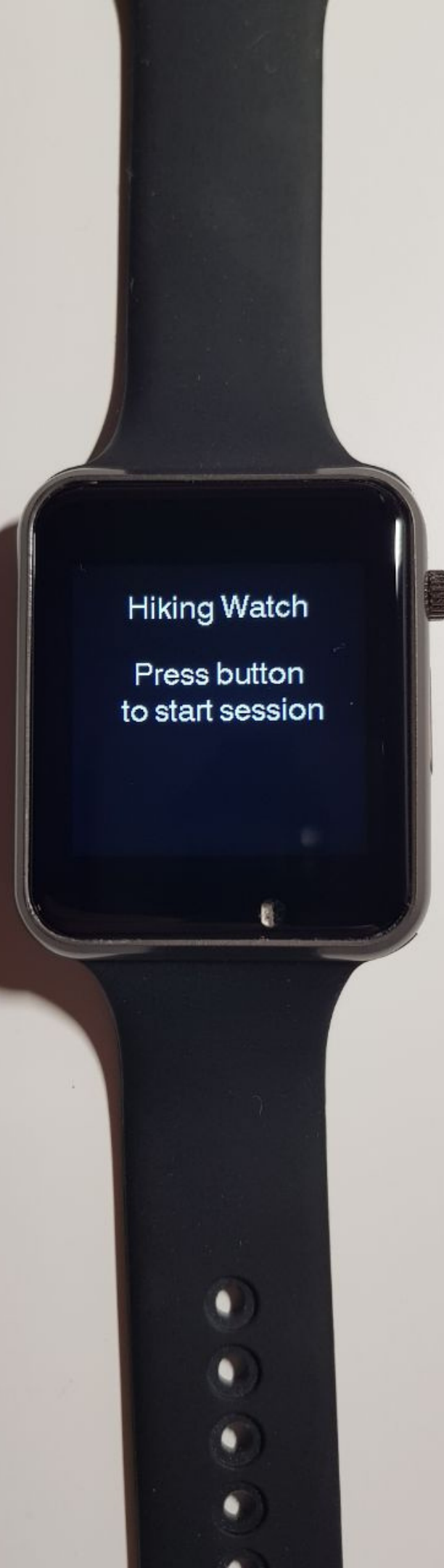Website

Live Demo

General overview

- Context
- Interfaces
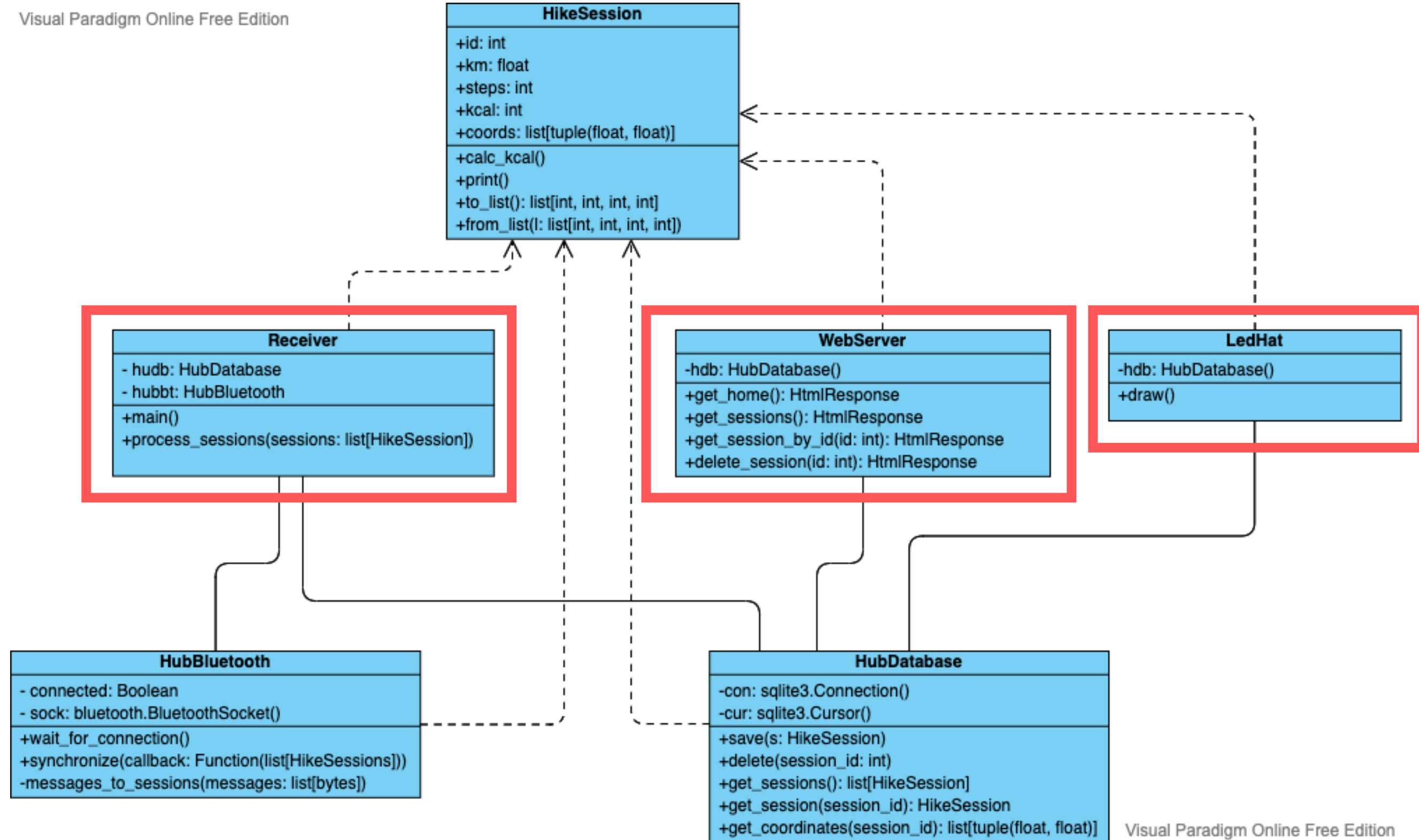 - User
  - Maintainer
- System Layout

Watch

- Functions
  - Step counter
  - Distance
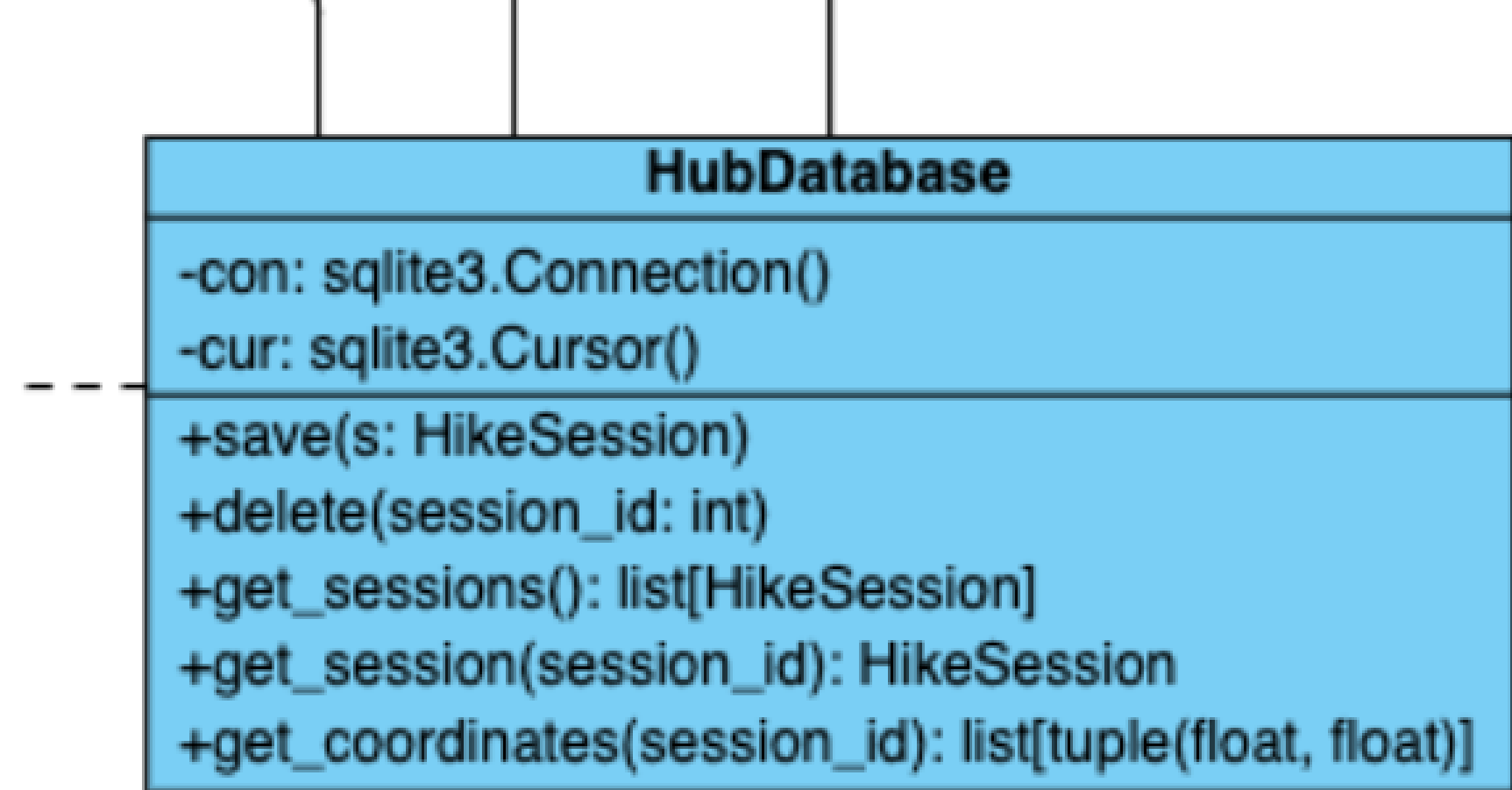 - Current position
- Automatic sync with hub

Hub

- Receiver
- Web Server
- LED Controller

- HikeSession as common data interface

Database

- HubDatabase
  - interface to sqlite3
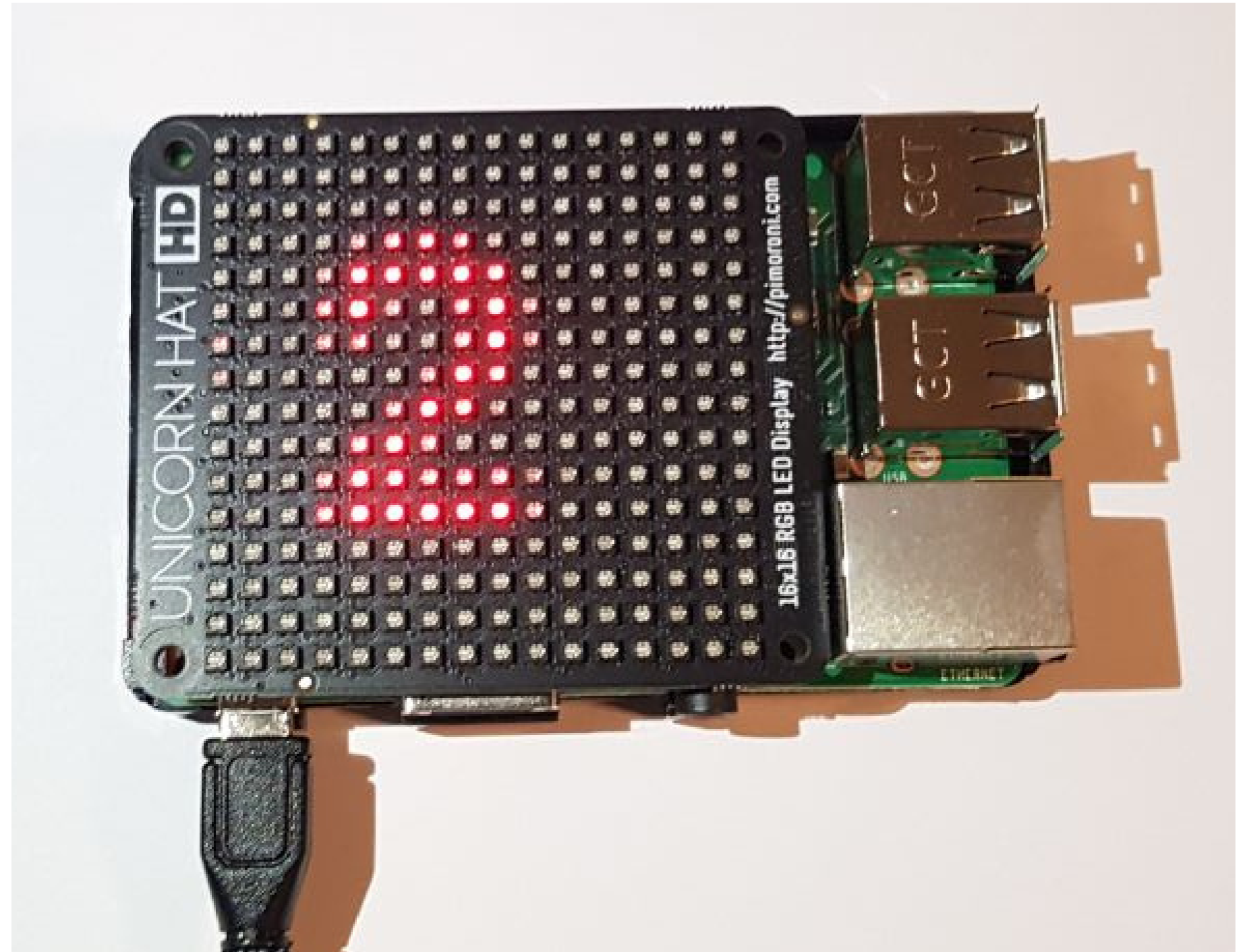 - used by all components
- SQL Tables

HubDatabase

-con: sqlite3.Connection()
-cur: sqlite3.Cursor()

+save(s: HikeSession)
+delete(session_id: int)
+get_sessions(): list[HikeSession]
+get_session(session_id): HikeSession
+get_coordinates(session_id): list[tuple(float, float)]

session	
session_id	**int**
km	int
steps	int
burnt_kcal	int

coordinates	
session_id	int
lat	REAL
long	REAL

LED Matrix Display

- Display last session
  - Step count

  - Distance

  - Burned Kcal

Website

- Access all

- Display one

- Delete any

LiLyGo Watch Database

Select a session:

empty
Session: 1
Session: 2
Session: 3
Session: 4
Session: 5
Session: 6
Session: 7
Session: 8
Session: 9

Parameters

0 (km)

5 (steps)

1.20 (kcal)

Delete session

Demo time!

Check out our repo