ESP-IDF Components Library

Library of Sensors and Other Components

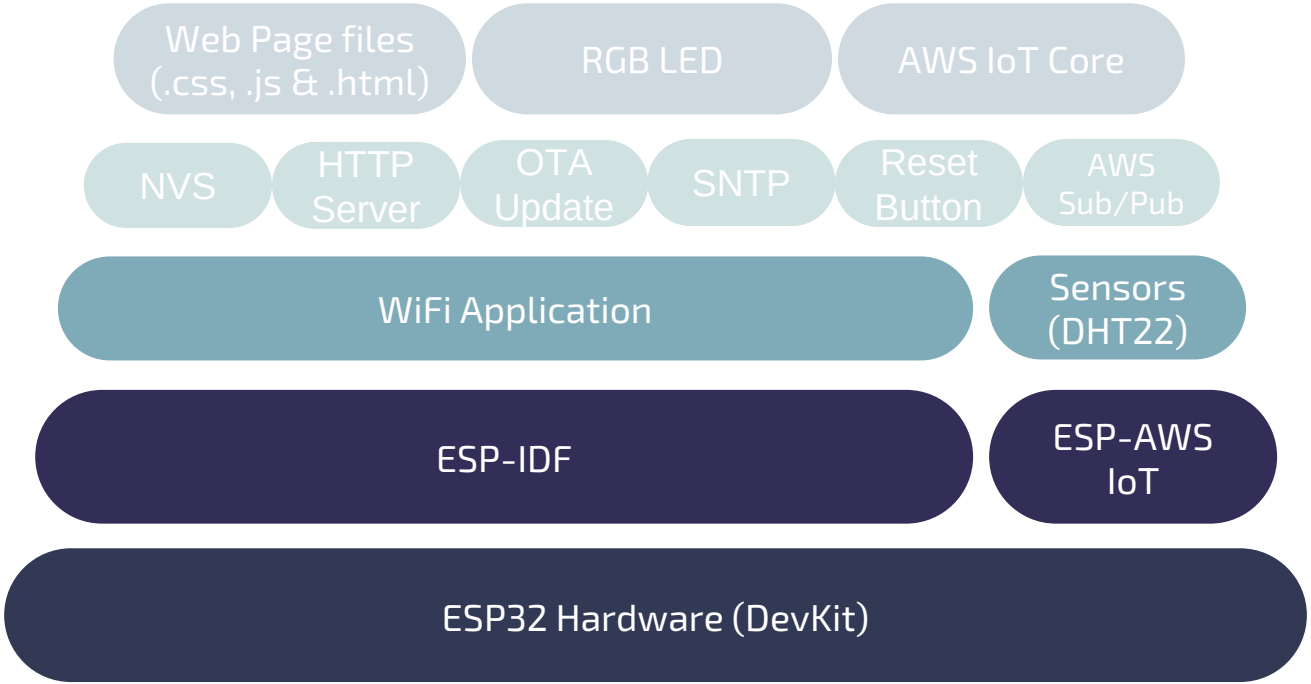
ESP-IDF Components Library

- Sensor Library Integration is Completely Optional
  - Lesson Plan
    - ESP-IDF Components Library Overview, Documentation and Examples
    - Project Structure
    - Integration Steps Preview
    - Demonstration

ESP-IDF Components Library Overview

- Component Library containing an abundance of drivers for sensors and more
  - Component Library → https://github.com/UncleRus/esp-idf-lib
  - Documentation → https://esp-idf-lib.readthedocs.io/en/latest/
    complete documentation on various sensors and components
  - Examples → https://github.com/UncleRus/esp-idf-lib/tree/master/examples

Application Project Structure



User Interface

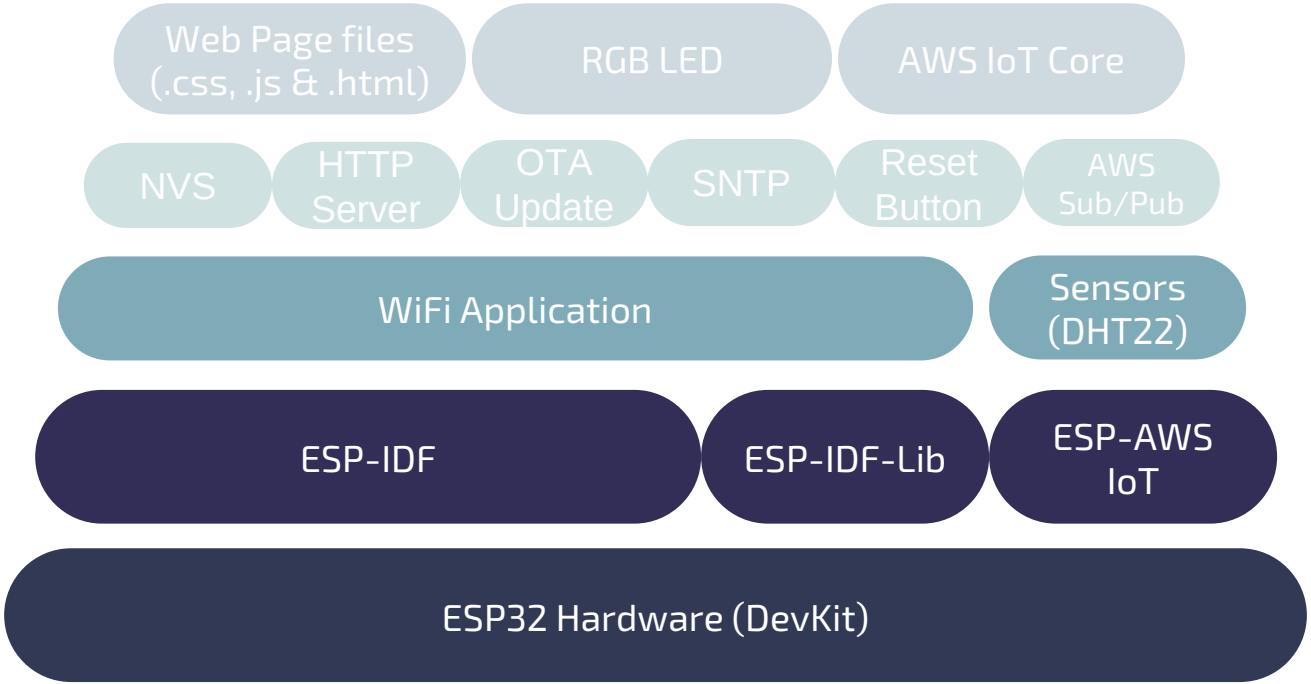
Application Features

Application Base

SDK & Extra Components

Hardware

Application Project Structure Update



User Interface

Application Features

Application Base

SDK & Extra Components

Hardware

Integration Steps Preview

- Integrate Library
  1. create a new empty project, and open git bash in it.
  - Clone ESP-IDF components/sensors library. from this repo:- https://github.com/UncleRus/esp-idf-lib
  - Adjust the top-level CMakeLists.txt file to include the sensor library component.

    set(EXTRA_COMPONENT_DIRS "esp-idf-lib/components")
- Integrate Example(s)
  - Either use one of mine or choose one from the library.
  - Adjust the CMakeLists.txt file in the main folder to include the example files.
  - Add the ‘Kconfig.projbuild’ file from example to the ‘main’ folder.
  - Adjust application files (main.c, tasks_common.h).

Examples Demonstration

- Demonstrate complete example(s) for easy adaptation for your own projects
  - BME680
  - … More

Next Lesson