Season of Docs

Google Season of Docs

Project Report

Project Title: Document third-party libraries

Description of the work done:

I have analyzed the top 40 most downloaded Arduino's and 3rd party libraries. I have found that there are libraries both Arduino-made and contributed that do not expose all of their potential towards users. So, I have written and updated their documentation.

I have documented the following libraries:

- Adafruit_Circuit_Playground.
- Adafruit_GFX_Library.
- LiquidCrystal_I2C
- DHT_sensor_library
- Adafruit_NeoPixel
- Adafruit_SSD1306
- OneWire
- SimpleDHT
- Adafruit_ESP8266
- LiquidCrystal
- DS3231
- Arduino_SigFox_for_MKRFox1200
- Keypad



Template:

The template I have followed is as follows:

Library Name

Description

Installation Methods

First Method

Second Method

Requirements (optional)

Features

Feature 1

Feature 2

Feature 3

Functions

Examples

Contributing

Credits

License



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Links to the documentation:

Adafruit_NeoPixel:

https://github.com/adafruit/Adafruit_NeoPixel/commit/d40ab3db35bd21200fa55de866b99ec914a06c11

DHT-sensor-library:

https://github.com/adafruit/DHT-sensor-library/commit/e194e633dfc0e1e1bea2bf2e327afa974a66fa05
https://github.com/adafruit/DHT-sensor-library/commit/3f3b1580907a7f945c8cf4911c7c6314a06f0378
https://github.com/adafruit/DHT-sensor-library/commit/1cc7cbcbbe220bf633087a6072b6967238a8c8af
https://github.com/adafruit/DHT-sensor-library/commit/47854ee87d6d4b30f9dba5b2145d87e7af5e518f

Adafruit_CircuitPlayground:

https://github.com/adafruit/Adafruit_CircuitPlayground/commit/0dc4d5452775208a250024e50d1faf7a6d963884
https://github.com/adafruit/Adafruit_CircuitPlayground/commit/019b2f392d93ae43da0c5f342c68cb37cd40d3f5

SigFox:

https://github.com/arduino-libraries/SigFox/commit/5b378174ca2ab187448e1d04a8b782d4480ea39e

Eduintro:

https://github.com/arduino/EduIntro/commit/91eef404c46d102772d5c41c209cd3340c5367da
https://github.com/arduino/EduIntro/commit/8ce19e53d7ce8ef22c15da658a0235641eb2f180



Adafruit_SSD1306:

https://github.com/adafruit/Adafruit_SSD1306/pull/157
https://github.com/adafruit/Adafruit_SSD1306/pull/157/commits/27bdb07fb0e1674a54e705e6a48038bb502610cd

Adafruit_ESP8266:

https://github.com/adafruit/Adafruit_ESP8266/pull/14
https://github.com/adafruit/Adafruit_ESP8266/pull/14/commits/6cbef56ef1fcf905ee619bdb88b4b8433a0c2f55

Adafruit-GFX-Library:

https://github.com/adafruit/Adafruit-GFX-Library/pull/252
https://github.com/adafruit/Adafruit-GFX-Library/pull/252/commits/306d6ca6fc238f6a66344424d35667e8c06e8b85

LiquidCrystal_I2C:

https://github.com/johnrickman/LiquidCrystal_I2C/pull/35
https://github.com/johnrickman/LiquidCrystal_I2C/pull/35/commits/0593d96b0fb35760a8d5315cd1e2957054501d98
https://github.com/johnrickman/LiquidCrystal_I2C/pull/35/commits/a40db4cdbf633eea60701a635fa3c575a84b06a7

SimpleDHT:

https://github.com/winlinvip/SimpleDHT/pull/39
https://github.com/winlinvip/SimpleDHT/pull/39/commits/76ea7a147f3ee8747eb8658805983354 16aa5a7a

DS3231:
https://github.com/NorthernWidget/DS3231/pull/18
https://github.com/NorthernWidget/DS3231/pull/18/commits/a17082329ce468023c58b62e4cf658d87ef9e49f
https://github.com/NorthernWidget/DS3231/pull/18/commits/13fc69bb91bdd86dae7e83bf2ed7fff2f669370a

https://github.com/NorthernWidget/DS3231/pull/18/commits/f3d27c3b0e2493e196c21db577a62d98c1419691

Keypad:

https://github.com/Chris--A/Keypad/pull/29
https://github.com/Chris--A/Keypad/pull/29/commits/7695d75205c0903a65d94faf99c41723325a1f2d

OneWire:

https://github.com/PaulStoffregen/OneWire/pull/84
https://github.com/PaulStoffregen/OneWire/pull/84/commits/6d6831892f763c3ea37b86684c43d1aff0a4ddc0
https://github.com/PaulStoffregen/OneWire/pull/84/commits/36a4139ddbeb39ac9c44698e3a8e862cf0cf3d33
https://github.com/PaulStoffregen/OneWire/pull/84/commits/1165aeddab1fa701f92071d162f013124015d56a
https://github.com/PaulStoffregen/OneWire/pull/84/commits/e3cb7944bd2e3bd0d4627515875b3b5baff98ff8
https://github.com/PaulStoffregen/OneWire/pull/84/commits/421640729caafcddbc11a5f556fdf06333a85579
https://github.com/PaulStoffregen/OneWire/pull/84/commits/1fb840a1de6af7678ef73297d0a8fb9af43f44c6

LiquidCrystal:

https://github.com/arduino-libraries/LiquidCrystal/pull/24
https://github.com/arduino-libraries/LiquidCrystal/pull/24/commits/25acc8159ffd03748acc9a6f95c53b73df574665
https://github.com/arduino-libraries/LiquidCrystal/pull/24/commits/65bfb467f5cb7b86cc279f9190e35eeb7361aef2
https://github.com/arduino-libraries/LiquidCrystal/pull/24/commits/a6f956e06b58a37b58160fb9bb3c1ee06341f6a5
https://github.com/arduino-libraries/LiquidCrystal/pull/24/commits/a6d78f2e2adebafa99ba45046436769647987aa1
https://github.com/arduino-libraries/LiquidCrystal/pull/24/commits/19e7a9b1e99231b2a54a1128073ffe1aa6cc605d

SigFox:

https://github.com/arduino-libraries/SigFox/pull/21
https://github.com/arduino-libraries/SigFox/pull/21/commits/2b42e90c805806f28db01cd77dcf3d8b83f4933e
https://github.com/arduino-libraries/SigFox/pull/21/commits/3d91858fba66a0a1d2d4b55766d3d4108b10cb3b

The current state of the project:

I have completed the documentation of the assigned libraries. Some of the PRs have been merged and some are still open.

Challenges:

- New to the open-source community.
- Using Markdown and AsciiDoc file formats for the documentation.

Learnings:

- The main objective of Google Season of Docs was to introduce technical writers to the open-source community. Open-source projects provide multiple benefits to their users. Open source enables technology agility, typically offering multiple ways to solve problems. Open source code means just that, you get full visibility into the codebase, as well as all discussions about how the community develops features and addresses bugs. I was introduced to the Open source community through this Google Season of Docs program.

- Arduino is an open-source electronics platform based on easy-to-use hardware and software. The Arduino environment can be extended through the use of libraries, just like most programming platforms. Libraries provide extra functionality for use in sketches. Working as a technical writer for Arduino, greatly added to my knowledge of Arduino's technical aspects, sensors, and libraries.

- I used Markdown and AsciiDoc file format for the documentation of Arduino and third-party libraries. Markdown provides a semantic meaning for content in a relatively simple way. It's flexible and portable to multiple platforms. I used GitHub for the open-source documentation of the libraries. Github provides version control using Git, which allows software projects to keep track of all versions and revert to previous versions if necessary.

- I learned and improved my skills that are required for effective documentation. I learned to create high-quality user documentation which was user-friendly, easy to navigate and browse. For the users to make the best use of the information that I provide, I created documentation that is free from jargon and concise so that the user easily understands it. Google Season of Docs helped me in understanding the importance of high-quality and easy-to-understand documentation for end-users.

- I created high-quality user documentation that is easy to navigate and user-friendly. This technical writing experience helped me to enhance my effective documentation skills. I quickly understood the technical concepts of Arduino and its third-party libraries. This greatly helped me in creating an easy to understand documentation for the users.