AMOS SS22 Project 1 firmware-downloader

Instructions

The project report will be published on our blog. It should be short and sweet, focussed on what you achieved.

> "I did not have time to write a short letter, so I wrote a long letter instead." Attributed to Mark Twain

Being concise is hard work and takes time. Please write as professional a text as you can. Use formal language and correct grammar.

For illustrations please use a persona rather than "test X" or "testperson12".

Prior examples (not necessarily following our instructions, sadly), can be found here:

https://dirkriehle.com/2021/03/02/summary-of-the-winter-2020-21-amos-projects/
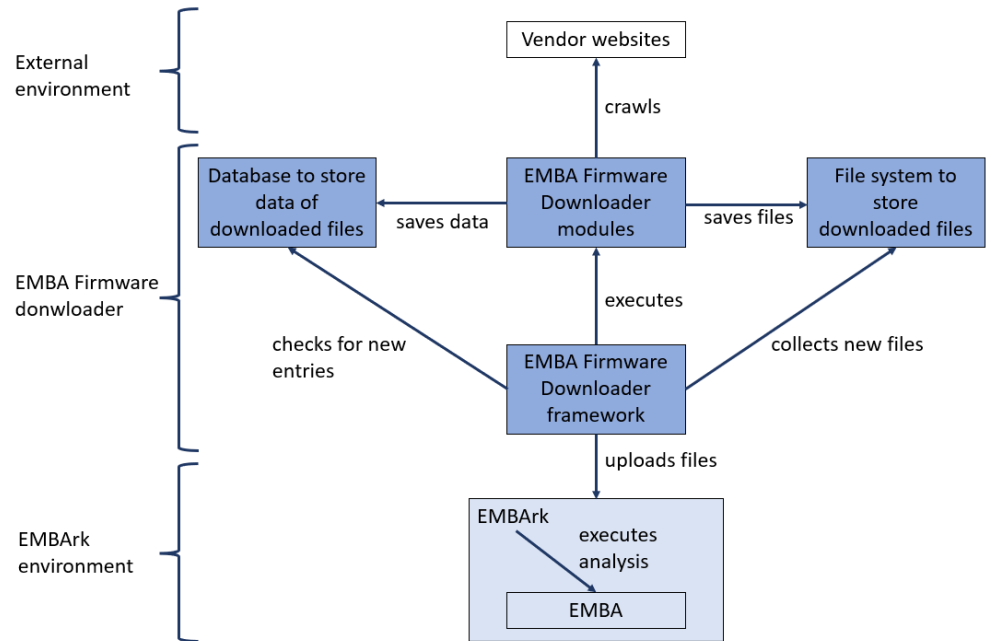
https://oss.cs.fau.de/2018/08/01/show-casing-the-2017-amos-project-simulating-a-cars-ecus-using-a-raspberry-pi-5/

Template

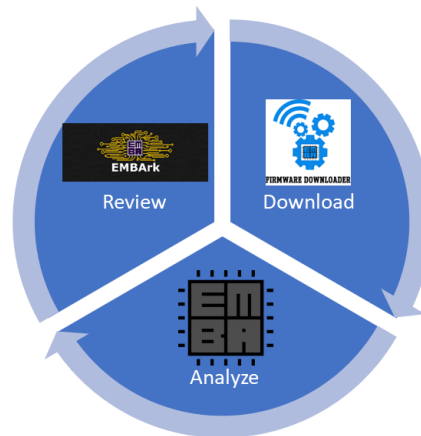Please use the following template for creating your project report.

Project name	EMBA Firmware Downloader
Project mission	The mission of this project is to create a fully automated and modularized firmware crawler, that can crawl vendor websites regularly and unsupervised for previously unknown firmware images. The found images are then added to EMBArk, where the vulnerability analysis is executed, logged and visualized.
Industry partner	Siemens Energy
Team logo	
Project summary	Our project consisted of two major tasks. (1) Building modules that crawl the different vendors' website and download the available firmware files and (2) to have a robust framework, which calls the modules and handles the connection to the database and EMBArk. As vendor websites might change their design or their location over time, which might cause errors, we focused on making the framework and the modules as error tolerant as possible. This focus limited the number of vendor modules that were developed. The framework could be finished by the end of the project, as well as some modules, that proof the functionality of the software. Extending the number of modules is a possible future task.

Project illustration	
Team photo	
Project repository	https://github.com/amosproj/amos2022ss01-firmware-downloader
Additional information	