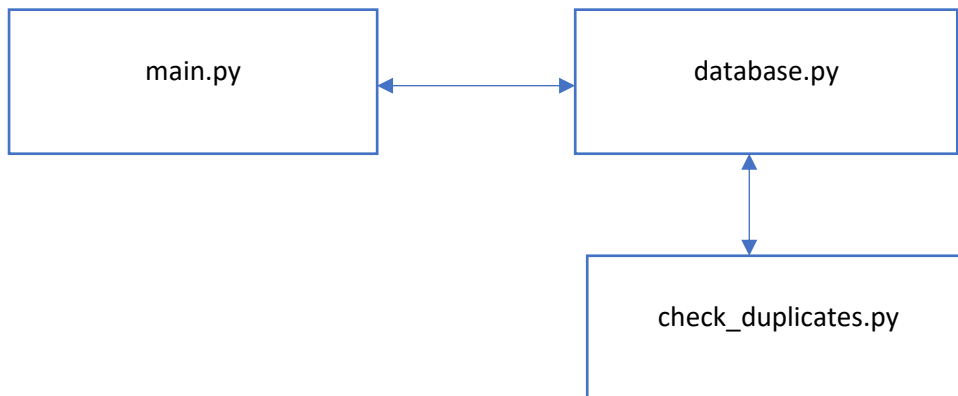


Documentation

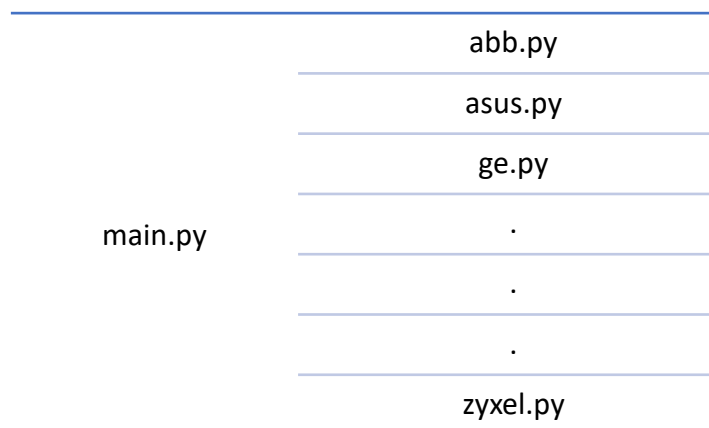
(For Mid-Release event only):

Software Architecture, code - design documentation:

High Level Architecture with code:



The `main.py` has individual modules which will use multi-threading to run each vendor modules.



Selenium Web driver is responsible for crawling each web in the main module

Vendor list:

<https://github.com/amosproj/amos2022ss01-firmware-downloader/blob/main/Documentation/Vendors%20to%20be%20investigated.pdf>

Sqlite3 is used for database configuration

- DB Config: <https://github.com/amosproj/amos2022ss01-firmware-downloader/blob/main/Documentation/Database%20Model.pdf>
- DB Architecture and Configuration:

		Data Base Field (Used in Python)	Acronym/ Description (with example)		
	Table Name:	FMDB	Firmware Database		
S.No	Columns:	Data Base Field (Used in Python)	Acronym/ Description (with example)	Data Base (As per SQLite3 Config)	Constraint
1	Manufacturer	Manufacturer	(e.g., Siemens, D-Link, AVM, ABB, ...) • Please refer to the link for all vendors needed for the project: Vendors (https://github.com/amosproj/amos2022ss01-firmware-downloader/blob/main/Documentation/Vendors%20to%20be%20investigated.pdf)	TEXT	NOT NULL
2	Model/Name	Modelname	(e.g., S7-1500, DIR300, Scalance-X, ...)	VARCHAR	NOT NULL
3	Version	Version	(e.g., 1.2.3)	TEXT	NOT NULL
4	Type	Type	(e.g., Router, Switch, Firewall, PLC, ...)	TEXT	NOT NULL
5	Release Date	Releasedate	If available from web scraper	TEXT	-
6	Checksum	Checksum	sha512	TEXT	-
7	EMBA tested	Embatested	yes/ no	TEXT	NOT NULL
8	EMBA link to report	Embalinkto report	filesystem	TEXT	-
9	EMBark link to report	Embarklinkto report	(http://...)	TEXT	-
10	Firmware downloads link	Fwdownlink	vendor link	TEXT	NOT NULL
11	Firmware filesystem link	Fwfilelinktolocal	to find it on the filesystem Firmware filesystem unique index id for each new file added into DB or local file system (In future, to integrate with EMBA/ EMBark)	TEXT	NOT NULL
12	Firmware File ID	Fwfileid		VARCHAR	PRIMARY KEY
13	Additional Data	Fwadddata	Additional Data (e.g., all additional description about the product)	BLOB	-

Note: The data is assumed to as per the information available and can be changed at any moment based on the changes needed in the Project

- <https://github.com/amosproj/amos2022ss01-firmware-downloader/blob/main/Documentation/Data%20Base%20Config%2CSetup.png> or
- <https://github.com/amosproj/amos2022ss01-firmware-downloader/blob/main/Documentation/Data%20Base%20Config%2CSetup.xlsb>

- The detailed architecture can be viewed at <https://github.com/amosproj/amos2022ss01-firmware-downloader/blob/main/Documentation/Software%20Architecture.pdf>