

| | Data Base Field (Used in Python) |
|-------------|----------------------------------|
| Table Name: | FMDB |

| S.No | Columns: | Data Base Field (Used in Python) |
|------|---------------------------------|----------------------------------|
| 1 | Manufacturer | Manufacturer |
| 2 | Model/Name | Modelname |
| 3 | Version | Version |
| 4 | Type | Type |
| 5 | Release Date | Releasedate |
| 6 | Checksum | Checksum |
| 7 | EMBA tested | Embatested |
| 8 | EMBA link to report | Embalinkto report |
| 9 | EMBArk link to report | Embarklinkto report |
| 10 | Firmware downloads link | Fwdownlink |
| 11 | Firmware filesystem link | Fwfilelinkto local |
| 12 | Firware File ID | Fwfileid |
| 13 | Additional Data | Fwadddata |
| 14 | Firmware filename | Fwfilename |
| 15 | Firmware file size | Filesize |
| 16 | Firmware file last edit | Lasteditdate |
| 17 | Check for File upload in Embark | Uploadedonembark |
| 18 | Embark Unique File ID | Embarkfileid |
| 19 | Status of Embark File | Startedanalysis onembark |

Note: The data is assumed to as per the information available and can be changed at database.py contains the functions for running/ usage of the database, main_d

Acronym/ Description (with example)

Firmware Database

Acronym/ Description (with example)

(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>)

(e.g., S7-1500, DIR300, Scalance-X, ...)

(e.g., 1.2.3)

(e.g., Router, Switch, Firewall, PLC, ...)

If available from web scraper

sha512

yes/ no

filesystem

(http://...

vendor link

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) -- uuid5 is based on the url of firmware (if url is not present uuid1 will be used)

Additional Data (e.g., all additional description about the product)

The data crawled from Web page is stored in this field for additional data accompany

The Size of file in bytes and is fetched once it is downloaded in the system

The Last Edit time details is fetched once it is downloaded in the system

Check for File upload in Embark

Embark Unique File ID

Status of Embark File

any moment based on the changes needed in the Project

'atabase.py/test_database.py is used to test run the working of sqlite3 database

Data Base (As per SQLite3 Config)

| Data Type | Constraint |
|------------------|-------------------|
|------------------|-------------------|

| | |
|------|----------|
| TEXT | NOT NULL |
|------|----------|

| | |
|---------|----------|
| VARCHAR | NOT NULL |
|---------|----------|

| | |
|------|----------|
| TEXT | NOT NULL |
|------|----------|

| | |
|------|----------|
| TEXT | NOT NULL |
|------|----------|

| | |
|------|---|
| TEXT | - |
|------|---|

| | |
|------|---|
| TEXT | - |
|------|---|

| | |
|------|----------|
| TEXT | NOT NULL |
|------|----------|

| | |
|------|---|
| TEXT | - |
|------|---|

| | |
|------|---|
| TEXT | - |
|------|---|

| | |
|------|----------|
| TEXT | NOT NULL |
|------|----------|

| | |
|------|----------|
| TEXT | NOT NULL |
|------|----------|

| | |
|---------|-------------|
| VARCHAR | PRIMARY KEY |
|---------|-------------|

| | |
|------|---|
| TEXT | - |
|------|---|

| | |
|---------|----------|
| VARCHAR | NOT NULL |
|---------|----------|

| | |
|------|---|
| TEXT | - |
|------|---|

| | |
|------|---|
| TEXT | - |
|------|---|

| | |
|---------|-------|
| BOOLEAN | FALSE |
|---------|-------|

| | |
|---------|------|
| VARCHAR | NULL |
|---------|------|

| | |
|---------|-------|
| BOOLEAN | FALSE |
|---------|-------|