

MARVEList

DOCUMENTATION

Marvelist is a program that allows you to learn about the Marvel comic universe's social network.

INSTALLATION

A. Location

Browser page: <https://github.com/PauToro/Marvelist>

Git: <https://github.com/PauToro/Marvelist.git>

B. Dependencies

For best results, use pip to install the following Python modules:

1. virtualenv (Optional)
2. sqlite3
3. pillow
4. PyMarvel
5. BeautifulSoup
6. networkx

DATABASES

A. Marvel Universe Social Network Originals

Location: /databases/originals

If needed, the original Marvel Social Network Universe files are located in this directory. They may also be downloaded at <https://exposedata.com/marvel/>

B. Sqlite3 Database: MarvelNetworks

Location: /databases

To access the MarvelNetworks database, move to the location above in Terminal and type the following comand:

```
sqlite3 MarvelNetworks
```

i. Schema

heroes_in_comics	
Name	TEXT
Issue	TEXT

Issues	
FullKey	TEXT
Key	TEXT
IssueNumber	TEXT
Year	INT

SeriesKeys	
key	TEXT
SeriesName	TEXT

IssueFullNames	
FullKey	TEXT
FullName	TEXT
IssueNumber	TEXT
Year	INT

IssuesURL	
FullKey	TEXT
URL TEXT	TEXT

Characters	
ID	INT
HICname	TEXT
Alias	TEXT
FullName	TEXT
YearCreated	INT
APIname	TEXT

MarvelAPIChars	
ID	INT
Name	TEXT
ImageURL	TEXT

nameMatch	
HICname	TEXT
APIname	TEXT

NOTE:

Only characters in TABLE **nameMatch** are compatible with the program!

ii. Python programs for populating tables

Location: /databases

separateCharNames.py

Separates the names in the **heroes_in_comics** table into aliases and real names and inserts these values into their respective columns

joinIssuesKeys.py

Inserts the full issue name with issue number into IssueFullnames table by joining data from **heroes_in_comics**, **Issues**, and **SeriesKeys** tables

getIssueUrl.py

Convert Issue Names to format used in Marvel Wikia URL and insert issue key and URL into **IssuesURL** table

MarvelAPITest.py

Calls Marvel API and outputs character IDs, name, and image thumbnail URLs to text file ready for csv conversion. Repeat until 1485 entries. Marvel API limits 100 entries per call.

matchCharToAPIChar.py

Matches characters in **Character** table to MarvelAPI characters by checking if the MarvelAPI Name matches either the character's alias or full name. If match found, inserts MarvelAPI Name into respective column for use as foreign key.

networkMatch.py

Creates a new network csv file using the matches found between the MarvelAPI and original **heroes_in_comics** characters. Characters are referred to with their MarvelAPI name in main program.

PROGRAM CODE

Location: root directory

A. **scrapperDef.py**

Scraps real name, alias, and first appearance from Marvel API Wiki page.
Imported for use in **marvelist.py**

B. **autocomplete.py**

A Tkinter widget with autocomplete. Imported for use in **marvelist.py**
Modified from Mitja Martini's widget. Original code can be found at:
<http://tkinter.unpythonic.net/wiki/AutocompleteEntry>

C. **marvelist.py**

File that runs the program and holds all other code.

i. Global Functions

1. **scrapIssue**

Scraps Wikia page for year of publication

2. **Image functions**

3. **GUI window creation functions**

ii. Classes

1. **Marvelist**

Holds root GUI and all subsequent frames

2. **SingleChar object**

Retrieves and holds information about a character.

Functions: getID, getDataAPI,
getMainImageURL, findTopEncounters, analyzeNetwork

3. **startScreen GUI Tkinter frame**

Allows user to choose task and input character names.

4. **singleCharScreen GUI Tkinter frame**

For individual network screen

5. **doubleCharScreen GUI Tkinter frame**

For common appearances screen

CREATOR

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