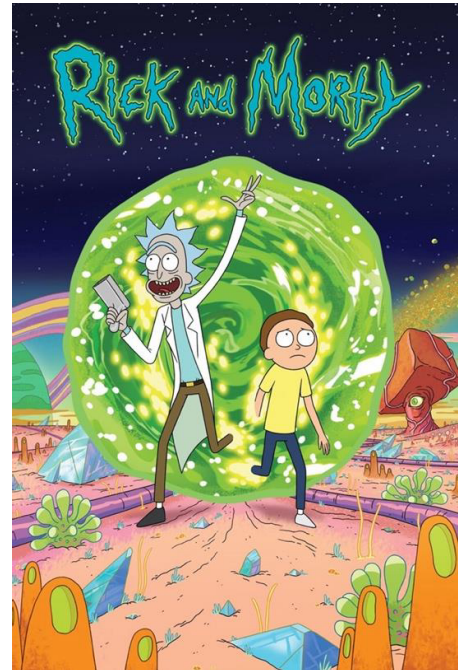


L13-T5: Fetching data from the web – Rick & Morty characters

In this task we want to fetch data from public APIs on the internet. Our case is to analyze characters details in Rick & Morty series. The series is famous for being “rather violent” and containing parallel universes. To analyze the characters and the series, we are going to write couple of scripts to understand the characters a bit better.

In our project, we will use the public Rick & Morty API: <https://rickandmortyapi.com/documentation/#character>

The API provides a lot of data (hundreds of characters for example). Because of that, the API is paginated, e.g. one query only returns 20 results. Here we will learn to use “pages”, e.g. request for the next 20 results.



Your goal is to do the following things:

1. Create a menu that asks for user input.
 - a. User can choose to get all dead characters from the show. If user chooses this option, he/she is asked for how many pages to retrieve
 - b. User can also choose to search for a specific character name and their living status (alive, dead, unknown). This input also asks for the maximum pages to retrieve
2. Once chosen, the code should request for the given data.
 - a. If the data contains value [“info”][“next”], it points to the next page. If the user has requested for more than 1 page, we should also fetch this “next” page and keep going until we have the wanted amount of pages
 - b. If there are less than the wanted amount of pages, just show the results that were found (not all searches return 10 pages!)
 - c. In all cases, print the details of the found character. See the example run for details to print

HELPERS:

1. Use the following imports to get the data

```
from urllib.request import urlopen
import json
```

2. Use the following command to call & read the JSON results

```
with urlopen(url) as response:
    body = json.load(response)
```

3. To check for the next page, use the following command (or similar)

```
next_page = body["info"]["next"]
```

Example run

```
Welcome to Rick & Morty API
You have the following options
0) Exit
1) Get all dead characters
2) Get characters by their name and living status
Enter your selection: 1
Enter limit of pages: 3
Getting page 1 url: https://rickandmortyapi.com/api/character?status=dead
Getting page 2 url: https://rickandmortyapi.com/api/character?page=2&status=dead
Getting page 3 url: https://rickandmortyapi.com/api/character?page=3&status=dead
ID:8 - name:Adjudicator Rick - type: species:Human - origin:unknown - status:Dead
ID:9 - name:Agency Director - type: species:Human - origin:Earth (Replacement Dimension) - status:Dead
ID:10 - name:Alan Rails - type:Superhuman (Ghost trains summoner) species:Human - origin:unknown - status:Dead
ID:11 - name:Albert Einstein - type: species:Human - origin:Earth (C-137) - status:Dead
ID:12 - name:Alexander - type: species:Human - origin:Earth (C-137) - status:Dead
...removed some entries for simplicity's sake...

ID:141 - name:Ghost in a Jar - type:Parasite species:Alien - origin:unknown - status:Dead
Total number of 60 dead characters
You have the following options
0) Exit
1) Get all dead characters
2) Get characters by their name and living status
Enter your selection: 2
Enter character to search for: morty
Enter living status (alive, dead, unknown): alive
Enter limit of pages: 3
Getting page 1 url: https://rickandmortyapi.com/api/character?name=morty&status=alive
Getting page 2 url: https://rickandmortyapi.com/api/character?page=2&name=morty&status=alive
ID:2 - name:Morty Smith - type: species:Human - origin:unknown - status:Alive
ID:18 - name:Antenna Morty - type:Human with antennae species:Human - origin:unknown - status:Alive
ID:27 - name:Artist Morty - type: species:Human - origin:unknown - status:Alive
..removed some results for simplicity's sake...

ID:759 - name:Turkey Morty - type:Turkey species:Animal - origin:Earth (Replacement Dimension) - status:Alive
ID:805 - name:Baby Mouse Skin Morty - type: species:Human - origin:Citadel of Rick's - status:Alive
Total number of 34 alive morty's found
You have the following options
0) Exit
1) Get all dead characters
2) Get characters by their name and living status
Enter your selection: 0
```