

Red Hat Technical Assessment - Data Engineer

This is meant to assess a number of things for potential candidates:

- Comfort with the programming language - Python
- Comfort with potentially troubleshooting problem when implementing a technology - Setting up MySQL database locally
- Proficiency with documentation

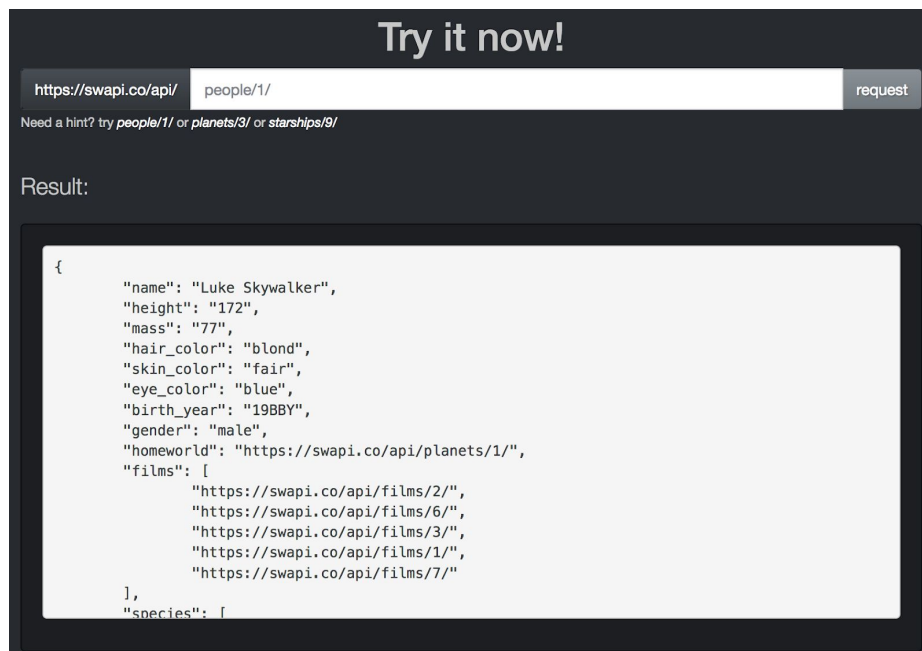
There are some requirements for the tasks:

- You cannot use the Pandas library to pull, push, or transform data.
 - We recommend using the Requests library to perform API requests.
- Use Python3.x not Python2.x
- You will not be allowed to use the Python wrapper for the Star Wars API.
- You should use MySQL for your database.
- SQL statements will be limited to *select* or *insert* or *create*.
- Data transformations should take place in Python during runtime.
- You should document all work so that a user can easily setup your project and verify your results.
- Your project needs to be hosted on Github

For the tasks below you will be using the Star Wars API - <https://swapi.dev/>

Task 1

The Star Wars API lists 87 main characters in the Star Wars saga. For the first task we would like you to use a random number generator that picks a number between 1-87. Using these random numbers you will be pulling 15 characters from the API using Python. (*reference below*)



We would like you to:

1. GET 15 random characters and the names of the films they have been in using Python.
2. Insert into MySQL - Please include SQL database schema(s) for any table(s) created in your Github repo
3. Write a script called *task_one.py* that when called will output something like this to the console. (*reference below*).

```
1  [
2      {
3          "film": "The Empire Strikes Back",
4          "character":
5          [
6              "Luke Skywalker",
7              "C-3P0",
8              "R2-D2",
9              "Darth Vader"
10         ]
11     },
12     {
13         "film": "Return of the Jedi",
14         "character":
15         [
16             "Luke Skywalker",
17             "C-3P0",
18             "R2-D2",
19             "Darth Vader"
20         ]
21     }
22 ]
```

Bonus Task

This is not required but if you would like to attempt it, please do so:

- We would like you to write unit tests for your functions and end to end testing for the tasks.

Good luck, and may the force be with you!