ESO SDET Coding Exercise

Overview

We are going to be using https://www.tvmaze.com/api for these exercises, more particularly the API at https://api.tvmaze.com

You are free to use any language you are comfortable with, although for reference we primarily use Javascript (Node, Typescript, and Vanilla) and C# at ESO.

Deliverable

We should receive a repository with instructions on how to run a script/project/set of tests that run the below exercises.

For example, if it were a node.js project it could be as easy as npm install && npm run test.

We would prefer the final delivery of the exercises to be a link to a public GitHub project with all the code and documentation. If this is a barrier, you can also zip up your project and email it to us instead.

Additionally, if you don't want a public project, you can create a private one and invite thekiiingbob (Bob Lubecker) and vinodkumarub (Vinod Kumar) as contributors.

Exercises

These exercises will build upon each other, as in data we get in one will feed into the next.

Keep in mind that **each exercise should be able to be run independently of the other** though! Each exercise should be able to fetch the data it requires from the API.

1) Getting a list of shows

- Make a GET request to https://api.tvmaze.com/shows to get all available shows in the API

You should now have a list of 200+ TV shows. For this exercise, we want a subset of these shows based on this criterion:

- It aired on the HBO network
- One of its genres is "Drama"
- The show premiered AFTER the year 2012 and BEFORE 2016

Note: this subset of shows, will be used in exercise 2

When you have your list, assert that the count of the shows is 3 and the names of the shows are "The Leftovers", "True Detective", and "Looking".

2) Episodes

With the list of shows from exercise 1, aggregate the data for each show and the episodes so that you can make the following assertions for each show and its episodes.

Note: this aggregation will be used in exercise 3.

This data can be acquired via the https://api.tvmaze.com/shows/{showID}/episodes endpoint. **The Leftovers**

- Season 1 has 10 episodes, the entire season has a total runtime of 600 minutes.
- Season 2 has 10 episodes, the entire season has a total runtime of 600 minutes. Season 3 has 8 episodes, the entire season has a total runtime of 495 minutes.

True Detective

- Season 1 has 8 episodes, the entire season has a total runtime of 480 minutes.
- Season 2 has 8 episodes, the entire season has a total runtime of 510 minutes. Season 3 has 8 episodes, the entire season has a total runtime of 503 minutes.

Looking

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- Season 1 has 8 episodes, the entire season has a total runtime of 240 minutes.
  Season 2 has 10 episodes, the entire season has a total runtime of 300 minutes.

3) Highest average episode runtime

With the data you aggregated in exercise 2, get the name of the show that has the **highest** average episode run time (e.g. totalRuntime / tot alEpisodeCount)

- Assert that the name of that show is "True Detective" and that the average runtime per episode is 62.208333 (or thereabouts depending on how many decimal places your solution may provide).