

# Coding Exercise

We want to test what is the best solution/program you can come up with when working with REST APIs. For this exercise, we are going to work with [OMDb API](#). Please see the documentation and get familiar with it. (*I found using [Postman](#) to exercise this API particularly useful*)

The assignment is as follows:

## Write code that does the following

1. Goto <https://www.omdbapi.com/> and sign up for an `API Key`. You'll need this `API key` to run the test.
2. Build a client that contains following methods using the [OMDb API](#):
  1. `search(string)`: returns a list of all results that matched that search string. Takes pagination in account when generating the list. Query uses `s` parameter as specified [here](#).
  2. `get_by_id(string)`: returns the result based on the input id e.g. `tt999999`. Query uses `i` parameter as specified [here](#).
  3. `get_by_title(string)`: returns the result based on input string as title name. Query uses `t` parameter as specified [here](#).
3. Write a test that does the following:
  1. Using `search` method, search for all items that match the search string `stem`
    - Assert that the result should contain *at least* `30` items
    - Assert that the result contains items titled `The STEM Journals` and `Activision: STEM - in the Videogame Industry`
  2. From the list returned by search above, get `imdbID` for item titled `Activision: STEM - in the Videogame Industry` and use it to get details on this movie using `get_by_id` method.
    - Assert that the movie was released on `23 Nov 2010` and was directed by `Mike Feurstein`
  3. Using `get_by_title` method, get item by title `The STEM Journals` and assert that the plot contains the string `Science, Technology, Engineering and Math` and has a runtime of `22 minutes`.

**Follow these steps**

1. Create a new project. Do not use any existing project
2. Use any programming language of your choice
3. Use your judgement and design the APIs, classes, clients, objects and tests as you see fit. We are looking for something that is:
  - Maintainable
  - Scalable
  - Extensible
4. Provide a `README` that gives information about your code and at the very least a step-by-step instruction on how to run the tests
5. Assume that we only deal in `JSON`. Please do not add support for `XML`.

### **Extra credit**

Doing the following is not a requirement but they are nice-to-haves that we would like to see:

1. Modular code with OO design
2. Code comments / docs
3. Logging using a logging framework instead of just a print statement. (No need for a configuration file)
4. Try to write the test as data-driven so that we can easily add more tests for different test data/parameters if needed.

When done, please send us your project as a compressed zip/tar file. The sooner, the better.

Best of luck!