# essence Interactive Center

### **R&D Test Mechanics**

## Purpose of the test

The purpose of the test is to objectify the technical value of the candidates and to what extent they are familiar with the technologies for the development of modern applications, and thus the conduct of a test is proposed, in which they can display:

- Knowledge about APIs consumption
- In case of front-end/client-side and Full-Stack developers: Development of a web application or SPA by using JavaScript / Android / iOS (candidates can choose one of them or a mix).
- Knowledge about development patterns.
- Development of RestFul APIs

### Mechanics of the test

#### General scope:

The candidate is asked to make a simple application. To do this, candidate will be able to use the APIs available at: <a href="http://www.omdbapi.com/">http://www.omdbapi.com/</a>. Candidate will also be expected to develop an API for some of the functionalities. What is desired of the application is that it displays all the seasons of a TV series chosen by the user (and that it saves those which are his favorites, consuming the API developed by candidate), and that it shows which have been favorited. Also, the application should display all the individual episodes for each of those seasons, and each of the episodes should contain some basic information, such as:

- Title
- Duration
- Release date
- Cover
- Cast
- Synopsis
- Possibility to rate the episode from 1 to 5 and save that information, consuming the developed API.

#### Particular scope (according of profile of each candidate):

- Front-End and Mobile developers must develop a native or SPA client, who should consume the public API at: <a href="http://www.omdbapi.com/">http://www.omdbapi.com/</a> (favorite chapters and assessing are not required in this scope).
- Back-End developers an SQL DB and develop the Business Logic and API (using .Net) for that model exposition in order to collect/update favorites TV series and votes of each user to calculate and provide the score according data provided in the public API.
- Full-Stack developers must design and develop both sides.

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### Test delivery:

For the delivery of the test, the candidate will be sent, to the provided email address, an invitation to a BitBucket repository (https://bitbucket.org/).

Feel free to deliver everything can help to deploy, introduce and support your entire work.

Then, you will have a week to deliver the proposed exercise from the date when the invitation was sent.

Afterwards, you will receive a meeting invitation to introduce and defend your work. Surprise us with a nice presentation.

### To be assessed:

- That the implemented APIs are secured.
- Solve the following problem: We want the application to be customizable in a simple, quick way; you know, changing colors, fonts, etc.
- If it is a web application, deploy it somewhere... a subdomain within your website or any other space you have available online. If you don't have a place for deployment, we'll provide it to you.
- Automate processes like the deployment and/or compilation... do you know the tools to do that? Prove it!
- Integration with other APIs → Feel free to integrate the application with other APIs as Twitter, Facebook or RottenTomatoes, surprise us...

In case of Back-end developers, server-side will be tested with an API test tool or through HTTP requests, from an Internet Browser.

### Further technical information:

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