

In JustClick Media we have many systems working in a distributed environment. Two of them we call "Le Redirect" and "Le Scanner". The Redirect is the project responsible to deliver our content to our clients users, and it needs to be fast and optimized to have the minimum response time as possible. On the Scanner project we process all the logs coming from the redirect and send this information to our Elasticsearch cluster.

As at JCM we are eager for using new technologies these projects are developed in Java, also have some serverless functions written in Node.JS, both hosted on AWS and connected with other systems inside the constellation of services such as Elasticsearch, Postgres, APM, Docker and Datadog.

On a daily basis we work with tickets written always in English and are with a structure similar to a story such as the following one.

Enjoy Coding!

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## JCM-001 Java Service

### Description

As a Lead Software Developer, I would like to test the programming capacities of a candidate and evaluate his coding style, structure, knowledge and creativity. For this, I would like for a Java service using Spring-Boot as Framework, a PostgreSQL database and an ElasticSearch instance that runs in Docker to be developed.

- This project should listen to the endpoint `/link/{string}`, where depending on the `{string}` inserted, an element in the Postgre database should be selected.
- When calling this endpoint, the user should be automatically redirected to an URL associated to this `{string}`.

### Acceptance Criteria

- In the database, there should be a max-value for each element. This represents the maximum times the endpoint can be called using that `{string}` and do the redirect. if this number has been reached, then the response should be a 404 website.
- The project should also set a unique Cookie for each different user that has called the endpoint.



## Developer Java Project

- The project should log all HTTP-Requests information in JSON-Format into a file called clicks.json, including the values of all the headers, parameters and cookies.
  - A scheduled job should be setup to run each hour in the 5th minute.
  - This job should read the click.json file and for each line try to get the Operating System, Operating System Version, the Browser and the Browser Version of the machines that made the request.
  - All this information from the log, and the fields gotten in the previous step, should then be saved into the ElasticSearch instance.
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This project should be uploaded to a GitHub repository and shared with the users [LeandroSybilla](#) after **One week**.

A **README (.txt or .md)** file with the instructions on how to run your code and a **start.sql** file with all MySQL queries needed to fill up the database with initial data must not be forgotten to be included.

**LOTS OF SUCCESS!**

**WE ARE LOOKING FORWARD TO YOUR APPLICATION!**

