

ALEXANDER SOUZA

APPLIED PROJECT AND MINOR DISSERTATION

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Supervisor

Damien Costello

Application deployed on AWS and Heroku:

<http://54.210.4.37/mycareer/>

GitHub

https://github.com/alexpt2000gmit/4Year_MainProject_MyCareer

YouTube video:

<https://youtu.be/6NChE0NcoLw>



THE PROJECT



The Application

MyCareer is a system that fully supports the recruitment and selection process of HR, provides an internal system to manage resumes, jobs, and a tool that can be integrated with the current system of the company that will make the company's own website in an online recruiter of candidates.

MyCareer is an application that, in addition to being scalable, uses the best in development, appearance, security and robustness frameworks.

The Application

Features

Applicants

- View available jobs.
- Apply for the selected work through the website.
- Submit the email to the job alert receipt

The Application

Features

Administrator

- Manage all available jobs.
- View all applicants.
- View applicants per job.
- The process of evaluation of the candidate in the act of the interview.
- Assessment with technical questions for candidates, divided by topics.
- Manage schedule for interviews and other appointments.

The Application

ARCHITECTURE / TECHNOLOGIES

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Front end

cms



Joomla!®



Career application module will be embedded on website



ANGULAR TypeScript



Authentication on Request



Access Token

Request for Protect Resource (Access Token)

{JSON}

Protected Resource

Back end

RESTful API



Authentication Server - JSON Web Tokens



spring

by Pivotal™



HIBERNATE



System Data

Website

<http://54.210.4.37/mycareer/>



MyCareer Jobs

<https://mycareer-webjobs.herokuapp.com/>

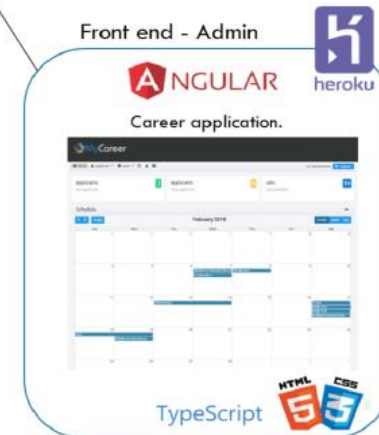


MyCareer Admin

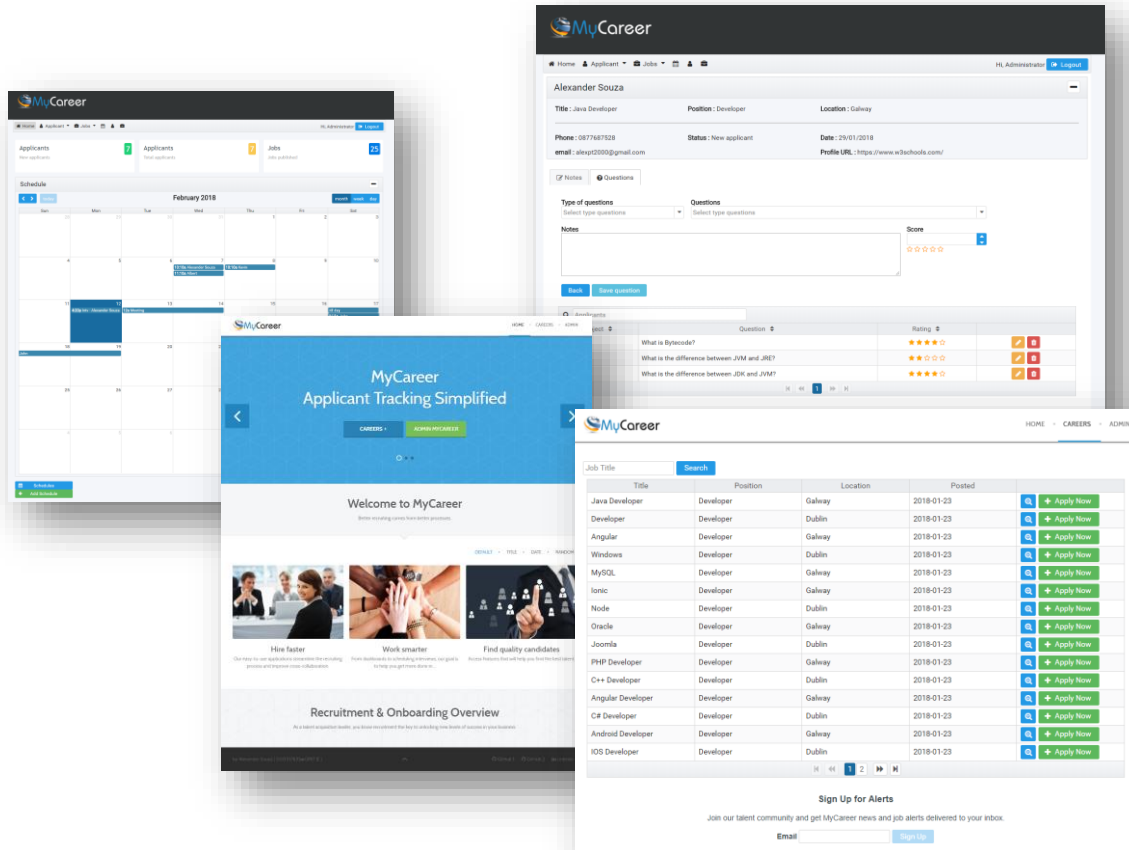
<https://mycareer-webadmin.herokuapp.com/>

API - Swagger UI

<https://mycareer-api.herokuapp.com/swagger-ui.html>



Technologies



For this project I will use various technologies, techniques and tools, such as:

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IDE - Development environment

- Spring Tool Suite / Visual Studio Code

API - Back end

- Spring Security
- JSON Web Token (JWT)
- Spring Boot
- Maven
- Hibernate
- Flyway
- Swagger UI

Database Environment

- MySQL

Front end

- Joomla
- HTML5 and CSS
- Angular 4
- PrimeNG - is a collection of rich UI components.

Cloud services

- AWS
- Heroku

Website

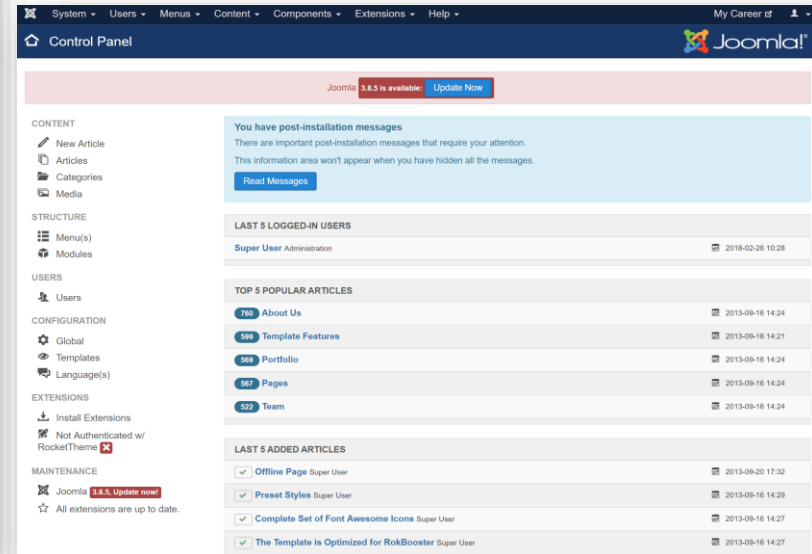
Joomla



The system also demonstrates how the system can also be used on the company's current website, in which case it has been used by CMS Joomla, a powerful website development tool that allows users to manage website content from a backend.

Access URL for the Website page:

<http://54.210.4.37/mycareer/>



UI components.

[GET STARTED](#)
[THEMES](#)
[SUPPORT](#)

Input

Button

Data

Panel

Overlay

File

Menu

Charts

Messages

Multimedia

DragDrop

Misc

InputGroup

Text, icon, buttons and other content can be grouped next to an input by wrapping the addons and input inside .ui-inputgroup element. Multiple addons can be used within the same group as well.

Addons

\$

.00

www

Multiple Addons

\$

Button Addons

Search

Checkbox and RadioButton

☐

☐

☐

☐

☐

```

<div class="ui-inputgroup">
  <span class="ui-inputgroup-addon"><i class="fa fa-user"></i></span>
  <input type="text" pInputText placeholder="Username">
</div>

<div class="ui-inputgroup">
  <span class="ui-inputgroup-addon"><i class="fa fa-credit-card"></i></span>
  <span class="ui-inputgroup-addon"><i class="fa fa-cc-visa"></i></span>
  <input type="text" pInputText placeholder="Price">
  <span class="ui-inputgroup-addon">${</span>
  <span class="ui-inputgroup-addon">.00</span>
</div>

```

The front-end (Applicants)

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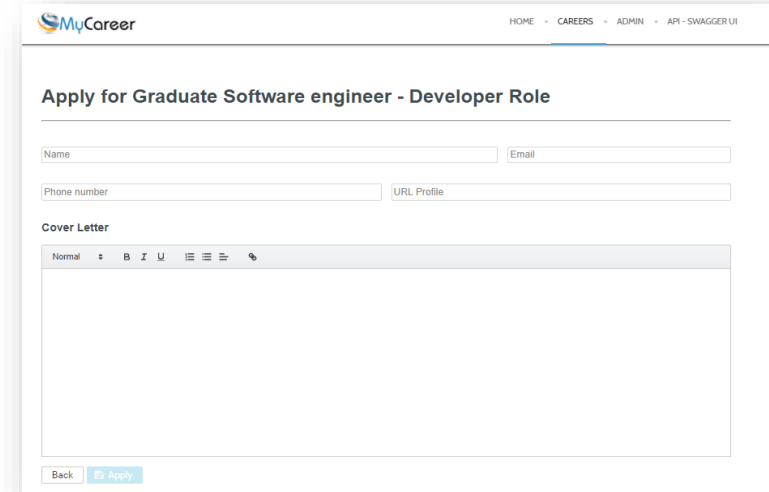
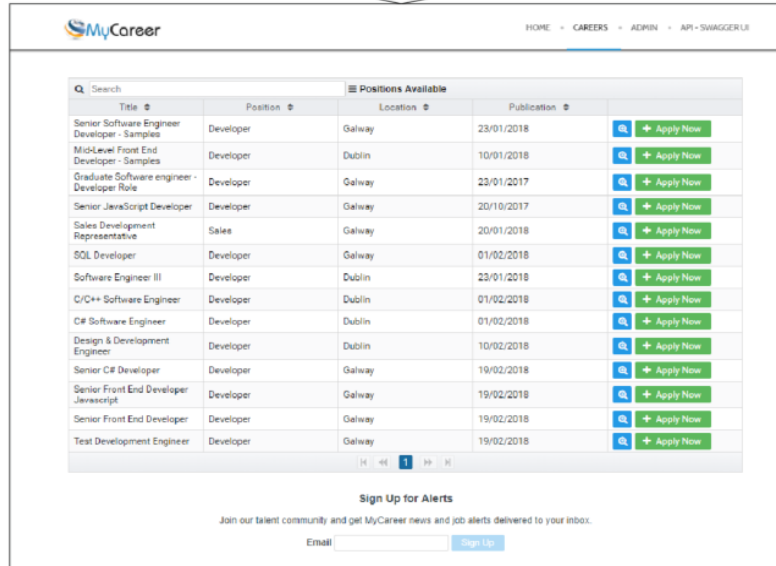
Joomla and Angular



Through the job application module, the applicant can view a list of all available jobs on the page and also be able to submit their personal data to the selected position.

Access URL for the front-end Applicants page:

<https://mycareer-webajobs.herokuapp.com/>



Backend (Admin - Applicants)

Angular

MyCareer

Home Applicant Jobs Hi, Administrator Logout

Applicants 3 New applicants

Applicants 6 Total applicants

Jobs 14 Jobs published

Schedule

February 2018

10:10a Intra-Alexander Sousa
11:10a Albert

12a Meeting

All day
6:10a John
8:10a Food
10:10a Intra-Sandra Sousa

10:10a Intra-Alexander Sousa
11:10a Albert

10:10a Intra-Sandra Sousa

Schedules
Add Schedule

by Alexander Sousa

Through this module, the administrator can manage the data provided by the API, such as:

- Manage published work;
- Manage applicants;
- Manage the system agenda;
- Candidate evaluation system;
- List of questions for the interview process.

MyCareer Admin

<https://mycareer-webadmin.herokuapp.com/>

MyCareer

Home Applicant Jobs Hi, Administrator Logout

+ Add Job

Jobs

List of Jobs

Title	Position	Location	Publication	Status	Actions
Senior Software Engineer Developer - Samples	Developer	Galway	23/01/2018	Open	Applicants
Mid-Level Front End Developer - Samples	Developer	Dublin	10/01/2018	Open	Applicants
Graduate Software engineer - Developer Role	Developer	Galway	23/01/2017	Open	Applicants
Senior JavaScript Developer	Developer	Galway	20/10/2017	Open	Applicants
Sales Development Representative	Sales	Galway	20/01/2018	Open	Applicants
SQL Developer	Developer	Galway	01/02/2018	Open	Applicants
Software Engineer III	Developer	Dublin	23/01/2018	Open	Applicants
Software Engineer-Tools Development	Developer	Dublin	23/01/2018	Pendent	Applicants
Software Engineer-Tools Development	Developer	Dublin	01/01/2018	Close	Applicants
C/C++ Software Engineer	Developer	Dublin	01/02/2018	Open	Applicants
CF Software Engineer	Developer	Dublin	01/02/2018	Open	Applicants
Design & Development Engineer	Developer	Dublin	10/02/2018	Open	Applicants
.Net Project Software Developer	Developer	Dublin	10/02/2018	Close	Applicants
Senior Process Development Engineer Medical Devices	Developer	Dublin	10/02/2018	Pendent	Applicants
Senior CF Developer	Developer	Galway	19/02/2018	Open	Applicants

Back

Backend (Admin - Applicants)

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Angular

Applicants					
Position - Senior Software Engineer Developer - Samples					
Name	Applied	Contact	Status	Notes	Questions
Alexander Souza	29/01/2018	0877687528 alexpt2000@gmail.com	Did not pass	★★★★☆	★★★★☆
Sandra Souza	29/01/2018	0877687528 Sandra@gmail.com	Missing requirements	★★★★☆	★★★★☆
Nina Souza	29/01/2018	0877687528 Nina@gmail.com	New applicant	★★★★☆	★★★★☆
Alex Souza	29/01/2018	0877687528 alexpt2000@gmail.com	In process	★★★★☆	★★★★☆
Kevin Fortes Souza	29/01/2018	0877687528 alexpt2000@gmail.com	New applicant	★★★★☆	★★★★☆

New Schedule - Alexander Souza

☐ All Day

Start date and time

End date and time

Notes

[Back](#)[Save](#)

Alexander Souza

Title : Senior Software Engineer Developer - Position : Developer Location : Galway
Samples

Phone : 0877687528 Status : Did not pass Date : 29/01/2018
email : alexpt2000@gmail.com Profile URL : https://www.w3schools.com/

[Edit](#)☒ Notes ☐ Questions

Score
4
★★★★☆

Notes

Reading between the lines, NAME seems to feel constrained by high school but, naturally looking for the positive, he was quick to point out the school's outstanding music program. Recognizing the caliber of the teacher who runs the music program, NAME joined chorale this year as a baritone. He feels this is a way to help him to get the most out of the school's offerings. While he seems very motivated, NAME has likely not benefited from the type of experiences that would show him how much opportunity is out there. But he seems passionate about doing something with his life that has impact, most likely in the area of Engineering and Environmental Science. His favorite writings are those by Aldo Leopold, which he finds thought provoking, prophetic and admirable because it shows how his beliefs evolved during the course of a life. NAME's admiration for Leopold is consistent with his own perpetual growth throughout life.

[Back](#) [Save evaluation](#)

Alexander Souza

Title : Senior Software Engineer Developer - Position : Developer Location : Galway
Samples

Phone : 0877687528 Status : Did not pass Date : 29/01/2018
email : alexpt2000@gmail.com Profile URL : https://www.w3schools.com/

[Edit](#)☒ Notes ☐ Questions

Type of questions

Select type questions

Questions

Select type questions

Notes

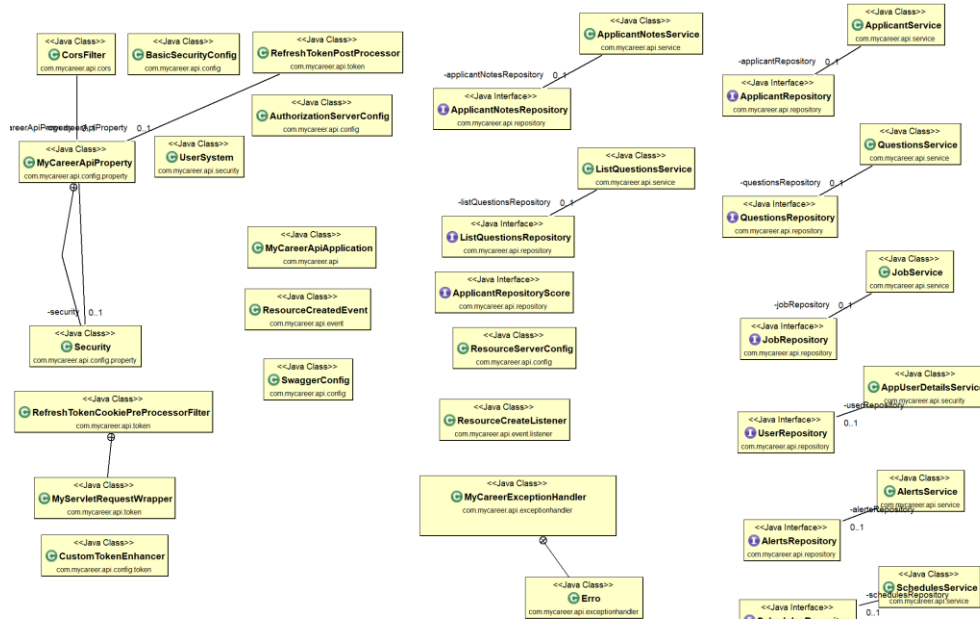
Score

★★★★☆

[Back](#)[Save question](#)[New question](#)

Search				
	Subject	Question	Rating	
<input type="radio"/>	Java	What is Bytecode?	★★★★☆	✓ ✗
<input type="radio"/>	Java	What is the difference between JVM and JRE?	★★★★☆	✓ ✗
<input type="radio"/>	HR Interview	What are your strengths?	★★★★☆	✓ ✗
<input type="radio"/>	HR Interview	Tell me about yourself	★★★★☆	✓ ✗
<input type="radio"/>	HR Interview	Why should we hire you?	★★★★☆	✓ ✗
<input type="radio"/>	HR Interview	Where do you see yourself in five years time?	★★★★☆	✓ ✗
<input type="radio"/>	Angular	What is Angular 4?	★★★★☆	✓ ✗
<input type="radio"/>	Java	What do you mean by platform independence of Java?	★★★★☆	✓ ✗

Spring boot



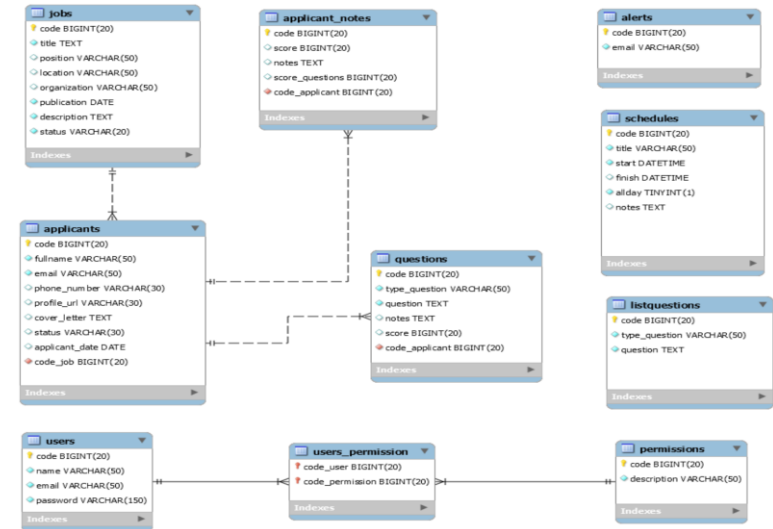
For the MyCareer project, the API will serve as the data for the UI, the persistence of the data and also to ensure the security of the application.

This is a RESTful API that uses the following technologies:

- Spring Boot;
- String Security;
- JWT;
- Hibernate;

API – Swagger UI

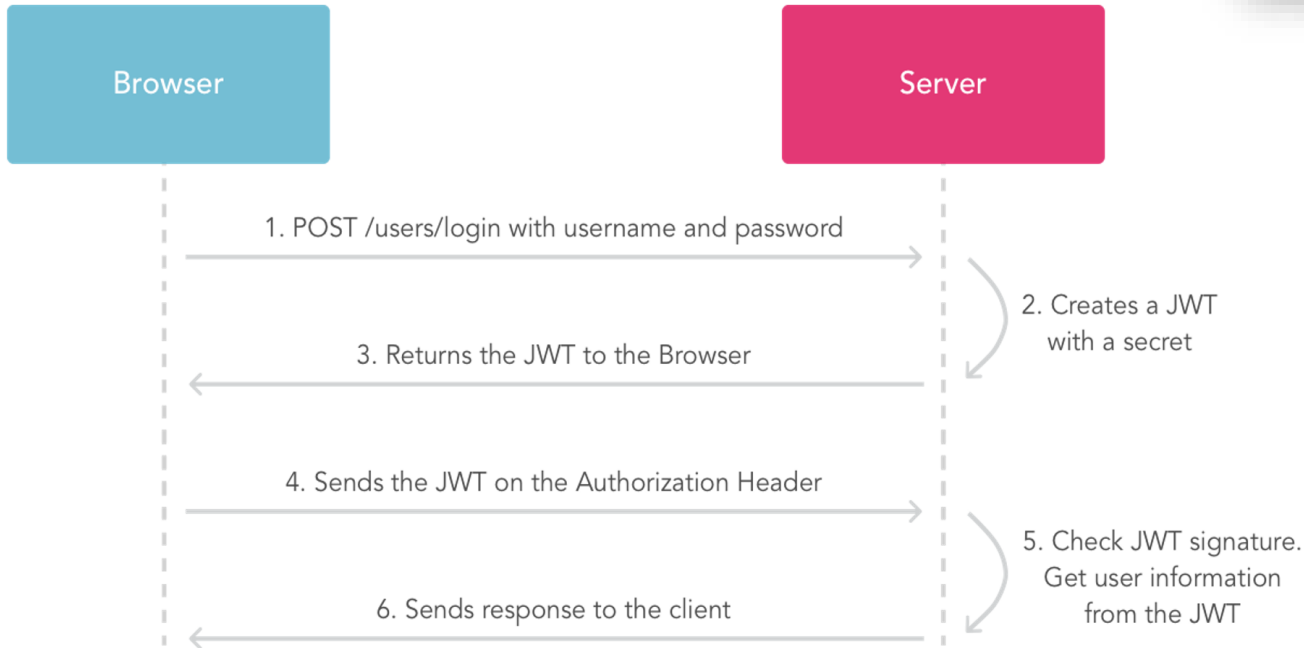
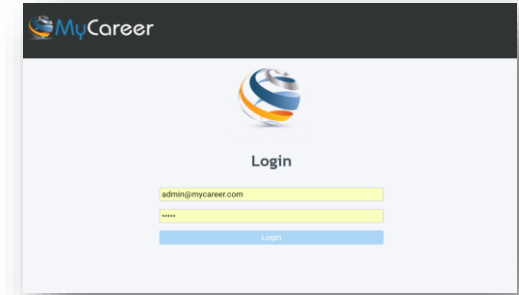
<https://mycareer-api.herokuapp.com/swagger-ui.html>



API - Security

Spring boot

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These rules (Payload) will be used in the system in order to be able to enable or disable system functionalities, thus creating different levels of access.

The UI applies this rule over the buttons, which can disable or make them invisible.

The screenshot shows the MyCareer web application interface. At the top, there is a navigation bar with links for Home, Applicant, Jobs, and a user profile icon. The user is logged in as 'Hi, Alexander' and can click 'Logout'. Below the navigation bar, there is a section titled 'List of Jobs' with a table of job listings. The table has columns for Title, Position, Location, Publication, Status, and Applicants. The jobs listed are: Senior Software Engineer Developer - Samples (Developer, Galway, 23/01/2018, Open), Mid-Level Front End Developer - Samples (Developer, Dublin, 10/01/2018, Open), Graduate Software engineer - Developer Role (Developer, Galway, 23/01/2017, Open), Senior JavaScript Developer (Developer, Galway, 20/10/2017, Open), Sales Development Representative (Sales, Galway, 20/01/2018, Open), and SQL Developer (Developer, Galway, 01/02/2018, Open). Each job has an 'Applicants' button. Below the table, there is a red box containing the URL 'https://mycareer-webadmin.herokuapp.com/jobs/newjob'. At the bottom, there is a large orange banner with a white shield icon containing a red 'X' and the text 'Access Denied! Please contact system administrator'.

Title	Position	Location	Publication	Status	Applicants
Senior Software Engineer Developer - Samples	Developer	Galway	23/01/2018	Open	Applicants
Mid-Level Front End Developer - Samples	Developer	Dublin	10/01/2018	Open	Applicants
Graduate Software engineer - Developer Role	Developer	Galway	23/01/2017	Open	Applicants
Senior JavaScript Developer	Developer	Galway	20/10/2017	Open	Applicants
Sales Development Representative	Sales	Galway	20/01/2018	Open	Applicants
SQL Developer	Developer	Galway	01/02/2018	Open	Applicants

https://mycareer-webadmin.herokuapp.com/jobs/newjob

Access Denied!
Please contact system administrator

Testing the API

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The screenshot displays the Postman application interface. On the left, the 'History' tab shows a list of recent requests, including GET and POST requests to various endpoints like `https://mycareer-api.herokuapp.com/applicants` and `https://mycareer-api.herokuapp.com/oauth/token`.

The main workspace shows a 'Request Token' request configured as a POST to `https://mycareer-api.herokuapp.com/oauth/token`. The 'Authorization' tab is selected, showing 'Inherit auth from parent'. A note states: 'The authorization header will be automatically generated when you send the request. [Learn more about authorization](#)'. Another note mentions: 'This request is using an authorization helper from collection [MyCareerHeroku](#)'.


The 'Body' tab is selected, showing a JSON response in 'Pretty' format. The response is a JWT token with the following structure:


```
1 {
2   "access_token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9
  ,eyJ1c2VyX25hbWUiOiJhZG1pbk8tZWVudC5jb20iLCJzY29wZSI6WyJyZWFiIiwid3JpdGUiXSwibmFtZSI6IkpXVCJ9eHAiOiJl
  1MjMzQ5OTYsImF1dGhvcm10aWVzIjpbIlJPTeVfUkVBRFR9TQ8hFRFVMRSiS1IjPTEVFQUREX0FQUEXJQ8FOVCiS1IjPTEVFQUREX0PQiS1IjPTEVFUkV
  NT1ZFX1NDSEVEVUxFlIiwiaWUK9MRV9SRU1PVkVfQVBTQTE1QU5UIiwiaWUK9MRV9SRERFU0NIRURVTEUiLCJST08xZX1JFTU9WRV9KT08iLCJST08xZX1JFURFQV8
  QT1DQU5UIiwiaWUK9MRV9SRUFEX08PQiJldCIqdGk1O1JmMTdhODAxOC00ZWFLTQyMTET0TdH1lN2NhZTc4Yjc4ODEiLCJjbG1bnRfawQioiJhbmdb1bGf
  yIn8.9GmE0ubKzEmewfgIfdB1EatuI4FiJ4lyGDN1cTbGgk",
3   "token_type": "bearer",
4   "expires_in": 1799,
5   "scope": "read write",
6   "name": "Administrator",
7   "jti": "f17a8018-4eae-4211-97a6-e7cae78b7881"
8 }
```

The status bar at the bottom indicates 'Status: 200 OK', 'Time: 842 ms', and 'Size: 1.88 KB'.

Testing the API

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 **swagger**

default (V2/apl-docs) 

Explore

MyCarrer API

4th Year Project - GMIT


Created by Alexander Souza
See more at https://github.com/alexpt2000gmit/4Year_MainProject_MyCareer
[Contact the developer](#)


alerts-web-resource : Alerts Web Resource	Show/Hide	List Operations	Expand Operations
applicant-notes-resource : Applicant Notes Resource	Show/Hide	List Operations	Expand Operations
applicant-resource : Applicant Resource	Show/Hide	List Operations	Expand Operations
applicant-web-resource : Applicant Web Resource	Show/Hide	List Operations	Expand Operations
dashboard-resource : Dashboard Resource	Show/Hide	List Operations	Expand Operations
job-resource : Job Resource	Show/Hide	List Operations	Expand Operations
job-web-resource : Job Web Resource	Show/Hide	List Operations	Expand Operations
list-questions-resource : List Questions Resource	Show/Hide	List Operations	Expand Operations
questions-resource : Questions Resource	Show/Hide	List Operations	Expand Operations
schedules-resource : Schedules Resource	Show/Hide	List Operations	Expand Operations
token-resource : Token Resource	Show/Hide	List Operations	Expand Operations

[BASE URL: / , API VERSION: 1.0]

API – Swagger UI

<https://mycareer-api.herokuapp.com/swagger-ui.html>

 **swagger**

default (V2/apl-docs) 

Explore

MyCarrer API

4th Year Project - GMIT

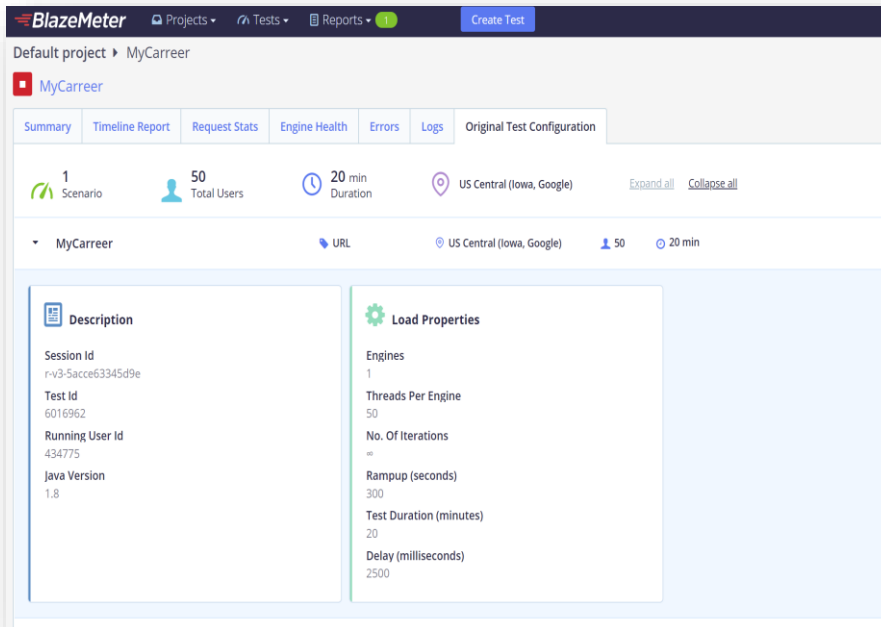
Created by Alexander Souza
See more at https://github.com/alexpt2000gmit/4Year_MainProject_MyCareer
[Contact the developer](#)

alerts-web-resource : Alerts Web Resource		Show/Hide	List Operations	Expand Operations
POST	/alertsweb			save
applicant-notes-resource : Applicant Notes Resource		Show/Hide	List Operations	Expand Operations
POST	/applicants/applicantnotes			add
DELETE	/applicants/applicantnotes/{code}			remove
GET	/applicants/applicantnotes/{code}			findByCode
PUT	/applicants/applicantnotes/{code}			update
applicant-resource : Applicant Resource		Show/Hide	List Operations	Expand Operations
GET	/applicants			findScore
POST	/applicants			add
GET	/applicants/job/{code}			findJobByCode
GET	/applicants/list			listApplicants
GET	/applicants/{code}			findByCode
PUT	/applicants/{code}			update
DELETE	/applicants/{code}/{codeQ}			remove
applicant-web-resource : Applicant Web Resource		Show/Hide	List Operations	Expand Operations
GET	/applicantsweb			find
POST	/applicantsweb			save

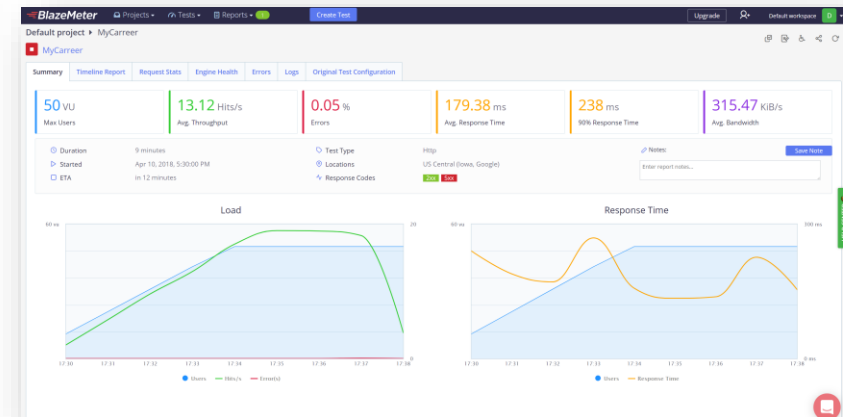
Testing the API

BlazeMeter

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BlazeMeter provides developers with tools using the Amazon Elastic Compute Cloud (EC2) service that provides mobile, web application, website, web-service or database testing that can simulate thousands of users.



Thanks 😊