

Results of tests:

During the tests, I have detected some issues:

1 – When a user with a wrong password is created, the response has the correct message:

```
00:59:38.132 over-writing existing variable 'expected' with new value: { "message": "Password does not conform to policy: Password must have symbol characters" }
```

but if the same user is tried to save with a correct password, it isn't possible because the username already exists:

```
[{"path":["SaveUser"],"locations":[{"line":2,"column":5}],"message":"An account with the given email already exists."}]
```

and it is necessary to delete the user to be able to save it with that username, although with a **UserReadModels** query it isn't listed.

2 – When a customer is saved, the **photo** field isn't saved properly and with a query of **ReadCustomerModels** it is allways displayed as an empty field "":

```
00:59:14.253 [print] [ { "photoUrl": "", "surname": "surname changed", "name": "name changed", "id": "CustNotAdmin2", "userId": "userNotAdmin@test.com" }
```

so, when a customer is updated with a new photo, it isn't possible to test if the photo is properly updated or it isn't.

3 – When a customer is deleted, it doesn't check if the customer exists or not and allways response with:

```
{"data":{"DeleteCustomer":true}}
```

4 – When saving a new customer, mandatory fields **name** and **surname** are allowed to be empty and the customer is saved with **null** values:

```
{"photoUrl":"","surname":null,"name":null,"id":"Customer_id","userId":"admin@theagilemonkeys.com"}
```

5 – I only have tested in the '**Prod**' environmet because in '**Dev**' I get a token, but when I try to post a graphql query with the authorizatiion token I get an error and I don't know if it is a default of the application or mine:

```
[{"message":"JsonWebTokenError: error in secret or public key callback: Unable to find a signing key that matches 'GksPOoCVGwocLWDNgKo5Q4GubDSTWLMx8GaRfHV/E7A='"}]
```

I have also uploaded the karate reports directory that I have after the tests to the repository.

Other tests:

I did some other tests manually, but I didn't automatized them due to lack of time, but one of the most relevant issues that I have seen it's this:

- Once a user is saved as "Admin" and its role is changed to "User", the new role is correct when the user is listed, but it keeps on having the behaviour of an admin user.

Possible improvements of the API:

- It would be fine that one user admin or not, can manage its own password.