

Skopei Backend Development Assignment

Create a small RESTful API that will allow clients to execute CRUD operations on Users and Products. Use local database to allow storing and modifying the data. You are allowed to look up anything you might need on the internet, but don't spend more than 4 hours on developing this project.

Requirements

Must have

These are the basic tasks required to complete the assignment.

1. Create a .NET Core API project (use .NET Core 3.0)
2. Create Users controller that has the following endpoints:
 - a. Create a new user
 - b. Retrieve a list of users
 - c. Retrieve a single user
 - d. Update a user
 - e. Delete a user
3. Create Products controller that has the following endpoints:
 - a. Create a new product
 - b. Retrieve a list of products
 - c. Retrieve a single product
 - d. Update a product
 - e. Delete a product
4. Write comments across the whole project to explain what each part of the code does and/or why was it done as such.
5. Hide any sensitive/unnecessary data for different use cases from the client.
6. Put the project in a public git repository, so we can fetch it and run it locally

Should have

These requirements are slightly less important, but we do expect them to be present in the final project you deliver.

1. Connect the API to local database and use code-first approach to migrate changes to the database.
2. Create User table that has the following model:
 - a. Id: primary key, integer value that is auto generated by the database
 - b. Name: optional string value
 - c. Email: required string value, that should be an email
 - d. DateModified: required datetime value that has current utc time as default
 - e. DateCreated: required datetime value that has current utc time as default
 - f. Deleted: required boolean value that defaults to false
3. Create Products table that has the following model:
 - a. Id: primary key, integer value that is auto generated by the database
 - b. Name: required string value

- c. Quantity: required integer value that has default 0
 - d. Price: required integer value (have in mind that some items may have a price of €9.99)
 - e. DateModified: required datetime value that has current UTC time as default
 - f. DateCreated: required datetime value that has current UTC time as default
 - g. Deleted: required boolean value that defaults to false
4. Write the necessary commands to create the tables in the local database.
 5. Use dependency injection to transfer data from different layers of the project.

Nice to haves

These are optional tasks and completing them is not necessary for a successful end result.

1. Add swagger documentation.
2. Protect all user endpoints, except create a new user, from being accessed by not logged in users.

Rating

When rating your project, we'll pay attention to:

1. Does the project work?
2. Does the project comply with the requirements?
3. Code tidiness
4. Comments with explanation of what different parts of the code does

Deliverables

Deliver your app via a public git repository. Send an email to Aleksandar Asenov at aleksandar.asenov@skopei.com, with Juliet Bouw at juliet.bouw@skopei.com and Inge Hoogendoorn at inge.hoogendoorn@skopei.com as CC. In this email include the link to the repository and tell us with which parts of the assignment you had the most difficulties.

We are going to fetch the repository and try to run the project locally for testing. There is no need for you to publish a working version of the project anywhere, but if you want to do that anyway, you are free to do so of course. If you do, please include a link to the published version in the email as well.

Questions

If you have questions or something is unclear, please don't hesitate to contact Aleksandar Asenov at aleksandar.asenov@skopei.com.