TEKEVER

To evaluate your skills and coding style, we would like to develop a small RESTful API in .NET.

TV SHOW TRACKER API

We would like you to build a small API that accomplishes the following:

1. Allows user registration
2. Allows user authentication & authorization
3. Usage of a access token for further operations (with TTL - should be pruned when time expires)
4. Returns all the tv shows available (in your database - details of a tv show are up to you)
5. It should be possible to see the release dates and other details about the episodes
6. Returns the tv shows by genre, type
7. All information (collections) should be sortable by the available fields
8. From a tv show, be able obtain the featured actors
9. From each actor be able to see the tv shows that he/she has appeared in
10. It should be possible to add/remove favorite tv shows
11. Uses a SQL/NoSQL database to store the information
12. Uses pagination when presenting lists
13. Recommends new tv shows, bases on the user's favorites
14. Background worker that sends emails with the tv shows recommendations
15. RGPD compliance
16. Export information to csv/pdf
17. Cache for constant information (with TTL - should be pruned when time expires)
18. Unit & Integration Tests

We also would like you to build a small web application using React JS, that accomplishes the following:
1. Demonstrates the capabilities of the API developed in the previous step, including
    a. Registration;
    b. Login;
    c. List TV shows, see details and follow to featured actors;
    d. List actors, see details and follow to tv shows appeared in.
2. You may use any layout
3. Use pagination
4. Unit & UI tests
5. Adapt UI so it can be displayed in different screen sizes (e.g Mobile)

PROCEDURE

1. Use SOLID design principles
2. You may use any source to obtain the information you need
3. Write a few sentences (max. 10) about your approach and send it with your solution
4. Document the API

5. Write a small document explaining how to install and run the API (or scripts that deploy the API automatically)
6. You have seven days to resolve this challenge
7. Share the project via Github.

PLUS

1. GraphQL
2. Entity Framework
3. Functional Programming
4. Cryptography
5. Dependency Injection
6. Integrate IA or Machine Learning
7. Feel free to add more items as you wish (amaze us)

Good Luck!