Midas Consulting Services
8 Ross Crescent,
Gonubie 5257
East London

Web Developer Practical Assignment

You are tasked with building a simple student management system web application. The application will have two main parts:

1. Web API Backend built using C# or NodeJs
2. Web Base Frontend client built using Angular.

Minimum Expected Functionality:

1. Crud operations for student details *(20)*
2. User should be able to import student details from CSV *(15)*
3. Admin, Parent and Student roles to access and edit details *(10)*
4. Dashboard to show student list with search/filter capabilities (10)
5. User access and security between API and front end (5)

Basic Requirements:

1. Provide 2 APIs, one developed by NodeJS *(20)* and other by C#. *(30)*
2. Frontend should be able to switch from the two using a config file *(5)*
3. Good UI/UX interface *(10)*
4. Good Object-Oriented Programming expected, using classes, interfaces and inheritance where possible. *(15)*
5. Student Details - id number, first name, last name, DOB, sex, student number, profile picture, grade
6. Student's Parent/Guardian - first name, last name, relationship to student, contact details, address

Bonus Requirements:

1. **Authentication using JWT Tokens**: Implement login and registration pages, and ensure that only authenticated users can access the book management features. *(10)*
2. **Testing**: Write unit tests for backend API endpoints and frontend components. *(10)*
3. **Error Handling**: Implement error handling on both the frontend and backend to provide meaningful error messages to users. *(10)*
4. **Swagger UI for API**: Add Swagger UI to show the web api. *(5)*

Midas Consulting Services
8 Ross Crescent,
Gonubie 5257
East London

Technologies to Use:

- Backend: C# and or NodeJs
- Frontend: Angular/React
- Database: Any relational database (e.g., SQL Server, MySQL, MongoDB)

Submission Guidelines:

- Submit the source code along with any necessary setup instructions.
- Include a brief summary of the approach you took in designing and implementing the application.
- Provide any additional notes or considerations regarding your implementation.

Evaluation Criteria:

- Adherence to requirements
- Code quality, readability, and organization
- User interface design and user experience
- Handling of edge cases and errors

Notes:

Feel free to expand or modify the requirements based on your preferences or specific project needs. The goal is to demonstrate your skills in building a full-stack web application using C# and Angular.

You are not allowed to ask for help or let someone do your assignment
You cannot download an existing project or someone's project

Due: Tuesday 5 March 2024 before midnight. Late submissions will not be entertained.