Homework Task: Backend Developer (C#) – Field Management System

Scenario

We are building a system to manage agricultural fields and crops. The goal is to allow users (e.g., farmers, agronomists) to create and manage fields where vegetables are grown. Not everyone should have access to every entity and row within the system.

Your task is to design and implement a basic backend solution in C# with ASP.NET Core, including a data model and CRUD APIs for the following core entities:

· User – A customer or our administrator who is using the system. Email is enough to identify user.

· Field – A plot of land managed by a user. Any fields optional

· Controller – A device or software module used to manage/automate the field (e.g., irrigation controller, sensor controller). Controller also relevant to particular Users.

Technology Stack

· C# with .NET 6 or later

· ASP.NET Core Web API

· Any other Framework that will help to work with Database.

Publishing

The solution should be published on public GitHub repository and the link should be provided.

Optional

Introduce tests for the project