**ASP.NET Core Job Management API**

This API provides data for job management, including job details and associated sub-items. It uses the Data Repository pattern and Entity Framework for API design.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Prerequisites

Ensure you have the following installed on your machine:

1. .NET SDK (Last version)

2. Visual Studio

3. A SQL Server instance (local or cloud-hosted) for database integration

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Steps to Set Up and Run

1. Clone the Repository

2. Open the Project

• Open the .sln file in Visual Studio.

3. Configure the Database

1. Open the appsettings.json file and update the ConnectionStrings section with your database connection string:

2. Run the following commands in the Package Manager Console to apply migrations and update the database:

**Update database**

**4. Run the API Project**

The API will start and be accessible at:

<https://localhost:44319/swagger/index.html>

**5. Test the API**

Use Browser to test the API endpoints:

• GET /api/jobs: Fetch a list of jobs with sub-items.

• POST /api/jobs: Add a new job.

• DELETE /api/jobs: Delete a job with specified Id.

• PUT /api/jobs: Update a job with specified Id.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Folder Structure

The Solution follows the structure as below:

3 Project:

* Alspec.DataAccess
* Alspec.Models
* AlspecProject

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Troubleshooting

• Database connection issues: Ensure the SQL Server is running, and the connection string in appsettings.json is correct.

• Port conflicts: If 5000 or 5001 ports are in use, change the launchSettings.json file in the Properties folder to use another port.

• EF migrations error: Ensure Microsoft.EntityFrameworkCore.Tools is installed.