

Visual Studio C# Assessment

Projects may be of the following:

- .NET Core (Preferred)
- .NET Framework

1. Create new web api project named "myApi" in a solution folder named "myDemo" using windows authentication.
2. Add a new class library project named "myData" to the solution.
3. Add a reference in myApi to the myData project.
4. Save the solution.
5. In myApi, create a new Person controller named "PersonController".
6. In myApi, create a new Person model named "PersonModel" having the following public properties:
 - int Id
 - string Name
 - string Email
7. In myData, create a new Person DTO named "PersonDto" also having the following public properties:
 - int Id
 - string Name
 - string Email
8. In myData, create a new repository interface name "IPersonRepository" having the following methods:
 - a. List<PersonDto>GetPersons()
 - b. PersonDto GetPerson(int id)
 - c. void SavePerson(PersonDto)
9. In myData, create a repository class named "PersonRepository" which implements the "IPersonRepository" interface.

10. In myData, in the "PersonRepository" class, create an in-memory list of 3 persons having the following values:

Person	Id	Name	Email
Person 1	1	John Doe	doej@test.com
Person 2	2	Jane Doe	doeja@test.com
Person 3	3	Tom Smith	tom.smith@test.com

11. In myData, in the "PersonRepository" class, ensure the following occurs:
- The GetPersons method returns all persons in list.
 - The GetPerson method returns the person matching the id value passed in.
 - The SavePerson method adds the passed in person instance to the list.
12. In myApi, add the following actions to the Person controller:
- A GET action to return all persons.
 - A GET action to return a single person by id.
 - A POST action to add a new person to the in-memory list.
13. In myApi, add a logger of your choice to the myApi project to log to any output.
14. In myApi, add an IOC container of your choice to inject the logger and repository into the Person controller.
15. In webApi, ensure the following occurs within each controller action:
- Using the ORM method of your choice, map between dto and model.
 - Log INFO output when each action is invoked.
 - Log ERROR output when an exception occurs.
16. Optional: Add a package reference and configure Swagger to test the API.
17. Compile, launch, and test the solution in debug.