**Patient Record System**

Create a Web application to save the records of patients in a hospital. You are requested to create the frontend, backend and provide all necessary APIs. Kindly create a strong infrastructure that shows all layers.

**Technical Requirements:**

1- **Backend:** C#, .NET core Framework. You are encouraged to use the best architecture practices and the full use of .NET core functionality. The usage of service injection is encouraged.

2- **Database**: SQL server

3-Use SQL for the statistics section instead of Entity Framework wherever applicable.

4- APIs should return JSON

5- **Front End**: React JS.

* + A single page application with the support of a unique route per view.
  + A login feature is required that reads from Identity framework.

6- Feel free for design.

**Application requirements:**

**Patient –New/Edit**

Create page to allow add and edit, with the following fields:

* Patient Name: Obligatory
* Official ID Number: Obligatory, Unique
* System ID number: Auto-generated
* date of birth: Not obligatory
* Email Address: Not obligatory

**Patient – List**

Create a page that contains list of the following field:

• Patient Name: Obligatory

• ID number: Auto-generated

• date of birth: Not obligatory

• Last entry: Calculated through records (Last record of that particular user). Can be null.

* Server side paging is optional.
* Action buttons for editing and reporting are available in the table.

**Patient Statistics page:**

Create a page and its corresponding API calls to get a report for a patient as follows:

1. Name of patient
2. Age (which must be defined from the date of birth)
3. Average of bills
4. Average of bills removing outliers (An outlier is defined as larger or smaller than the average +/- 2 standard deviations)
5. 5th record entry of patient (if available)
6. List of other patients with similar diseases (Similar diseases mean that the two patients have in common 2 or more diseases)
7. The month that contains the highest number of visits as text (e.g. February)

**Patient Record – New**

Create a page and its corresponding API calls to handle the creation of records in the system with the following details:

* Patient: Obligatory
* Disease Name: Obligatory (Text)
* Time of Entry: Not Obligatory (If not filled, means NOW)
* Description
* Bill (Money Amount)

The edit feature is a plus.