# Clinic appointment system – MVC ASP.Net

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**Purpose:**

1. allow patients to take appointments through this application.
2. Allow doctors to see their appointments and manage their availability.

\*Program will have three different user group. (Admin, Doctor, Patient)

\*The Home and Contact are accessible to all users without authentification.

\*The Doctor and Admin pages are only available to authenticated users. When a user attempts to access those pages, they are redirected to the login screen.

\*Patients can register through the website.

A new doctor profile can be added by an Admin. Existing doctors and patients can edit their own profiles.

**Process:**

\*Each doctor will enter his daily availability for the next 2-4 weeks. This is done periodically.

\*The doctor will choose a date, then enter his available hours for that day. Admins can also do this for doctor profiles.

\*When a doctor enters his availabilities, a database trigger will automatically create default time slots for that date with that doctor Id.

\*Time slots will have a status of taken or available (represented by a bit data type in the database with a value of 0 for taken, 1 for available. The default is available.

\*When a patient chooses a doctor to book his appointment with, he will see only the available time slots for that doctor.

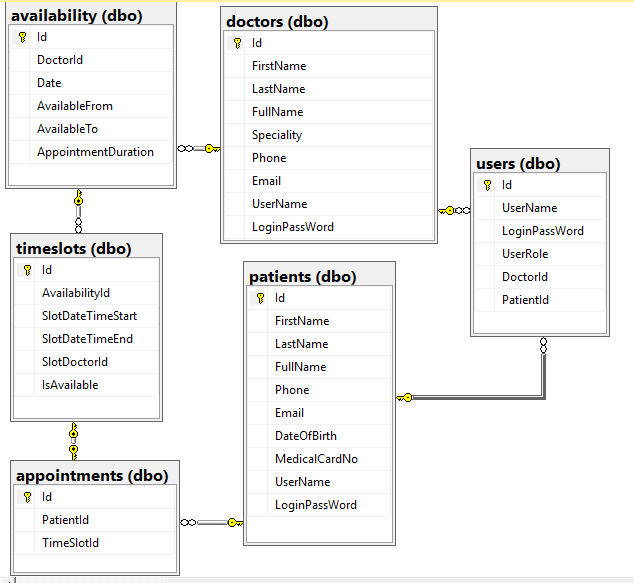
\*Patients can also cancel an appointment up to 24 hours before their appointment.

\*Admin have full access to all functionalities: add doctors, register patients, book an appointment, modify the schedule, add or modify time slots, etc…

**Tools:**

Visual studio, MVC, C#, sql server azure, entity framework, using code first based on existing database aproach.

**Database diagram**



Implemented trigger to enter the timeslots automatically according to availability.

Doctor with id 3 entered an availability as below:

Id DoctorId Date AvailableFrom AvailableTo Appointment Duration

4 3 2018-04-03 2018-04-03 08:00:00.000 2018-04-03 12:00:00.000 60

Then these below records are inserted into timeslots by trigger

Id AvailabilityId SlotStart SlotEnd Slot DoctorId IsAvailable

1 4 2018-04-03 08:00:00.000 2018-04-03 09:00:00.000 3 1

2 4 2018-04-03 09:00:00.000 2018-04-03 10:00:00.000 3 1

3 4 2018-04-03 10:00:00.000 2018-04-03 11:00:00.000 3 1

4 4 2018-04-03 11:00:00.000 2018-04-03 12:00:00.000 3 1

Implemented trigger to enter the user table automatically when a doctor or patient is added.

Important validation to be implemented:

1. Each Availability entering by doctor will be checked to see if overlaping with existing ones. Overlaping is not allowed. But availibilty can be entered without date/time sequence.
2. Doctor can delete availability if there is no appointment is taken on the time slot with this availability
3. Patient can cancel appointment if 48 hours in advance.
4. Patient (User) registration check to see if the entered user name is unique.

UI interface can change, this is draft.

Patient

Doctor

Admin

