

# Book A Table

Project Requirements

# **Content**

[Overview](#)

[Software Technologies](#)

[Software Architecture](#)

[Entities](#)

[User](#)

[Restaurant](#)

[Reservation](#)

[Database Diagram](#)

[User Stories](#)

[Administrator](#)

[Client](#)

[Manager](#)

# Overview

Book A Table is a web application that allows you to easily book a table in a restaurant or register your restaurant so it can provide online reservation service. The project target groups are restaurant managers and restaurant clients.

## Software Technologies

Project can be implemented with any web framework and technology.

Preferred technologies

- Backend - ASP.NET MVC 5
- Frontend - ASP.NET MVC Razor, HTML, CSS, Bootstrap, JavaScript, jQuery
- Database - Microsoft SQL Server
- ORM - EntityFramework

## Software Architecture

Project should be implemented according to the following 4-tier architectural model:

1. Persistence Layer - the persistent data in a relational database
2. Data Access Layer - classes implemented with repository pattern for data access
3. Service Layer - the business logic of the application
4. Presentation Layer - web user interface

## Entities

### User

- Email - string in standard format; required
- Password - string; minimum 8 characters, at least one capital letter, one small letter and one digit; required
- Name - string; contains letters or hyphen(-), apostrophe(') in appropriate cases, e.g. Irish surnames; required
- Phone - string; contains only digits and special symbols for phones, e.g. spaces, plus(+), round brackets ( ), square brackets []; optional

### Restaurant

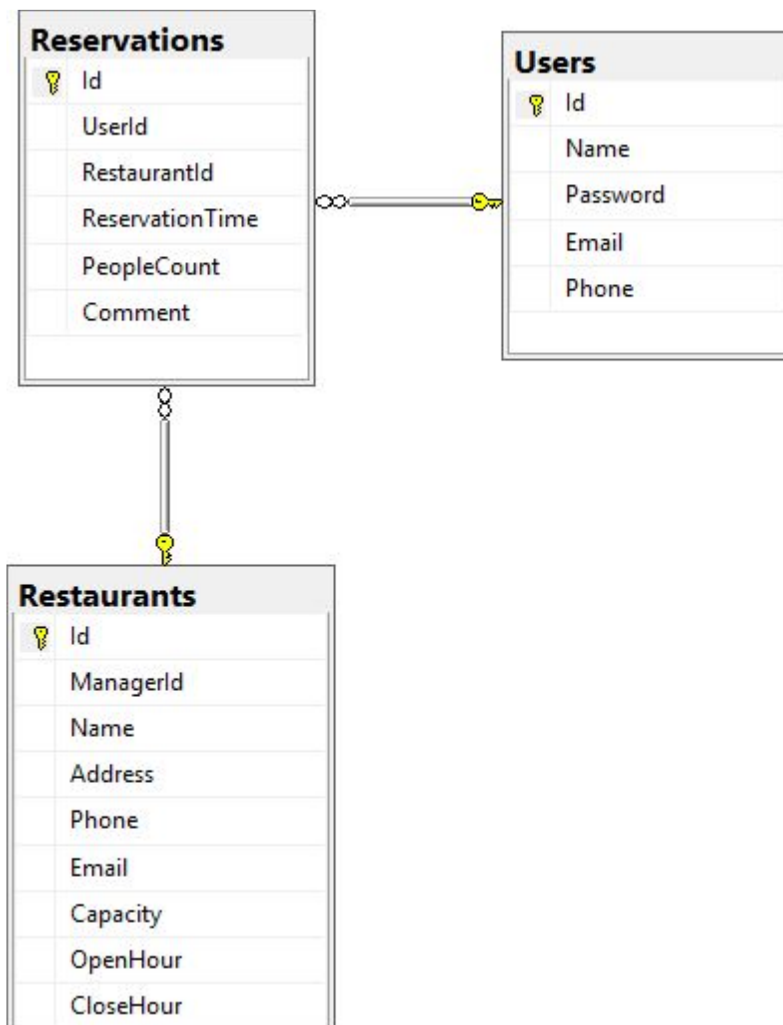
- Name - string; required;
- Address - string; required;

- Phone - string; contains only digits and special symbols for phones, e.g. spaces, plus(+), round brackets (), square brackets []; required
- Email - string in standard format; optional
- Capacity - integer; positive number; required
- OpenHour - datetime; required
- CloseHour - datetime; time after OpenHour; required

## Reservation

- ReservationTime - datetime; time between the OpenHour and CloseHour of the restaurant; required;
- PeopleCount - integer; positive number in range between 1 and the restaurant free capacity at the moment of ReservationTime; required
- Comment - string; optional

## Database Diagram



# User Stories

## Administrator

As an application administrator I would like to be able to:

- Install the project on a server
- Register in the application with email, password and name
- Log in the application with email and password
- Create, read, update and delete users
- Create, read, update and delete restaurants
- Read activity logs

## Client

As a client I would like to be able to:

- Register in the application with email, password and name
- Log in the application with email and password
- Read a list of all available restaurants in the application
- Create, read, update, cancel a reservation
- Read a list of the restaurants I have visited

## Manager

As a manager I would like to be able to:

- Register in the application with email, password and name
- Log in the application with email and password
- Create, read, update and delete restaurants
- View the following reports
  - My most visited restaurants
  - Cancelled reservations
  - Regular customers