## Description

VenueApp is an event ticketing Web application that allows staff members at any organization to manage and track the reservations for the events that they offer. It also allows consumers to browse the webpage for available events and make a reservation online.

This application could become a customizable platform for any business owner with a Venue or similar business that needs to manage users, events, memberships, reservations, tickets, promotions etc.



#### Features

- User Signup, User Login and User Logout (Through Sessions)
- Embedded *Administrator* and *User* roles in the app (Allowing feature differentiation and separate dashboards)
- Intuitive management of database tables (create, edit, delete)
- Populate *Events* table via 3<sup>rd</sup> party connection (Ticketmaster API)
- Query Interface to browse or search events in the database.
- Events Location Map (Using BingMaps API)
- Unique user reservation QR code Ticket. (Using goqr.me API)



## Planning - User Stories

- Administrators can login, create and edit events (with details such as date/time, location, title, description, category, etc.).
- Administrators can populate or fill the events database with real life data via queries to an Events API.
- Users can browse the web app and search for available events
- Users can signup and/or login to the app which will enable them to Book an event and also manage their reservations and profile info.
- Users can view their bookings and request an QR code for the event.



# Planning - Database

The primary tables for the database are: Users, Events and Bookings. The Secondary tables are: Type, Memberships and Categories.

- All tables except Bookings, have a primary key(ID).
- Users have all the information of a common user like: Username (Unique index), Full Name, Password, etc. they have a one to many relationship to the Type table, and Membership table through their foreign keys.
- Events have all the information of an event, like: Name, Date, Time, Category, etc. They have a one to many relationship to Categories through the foreign key.
- Bookings is a Cross-Reference table to create a many to many relationship between the users and the events. The objective is to create a unique Reservation for each user.

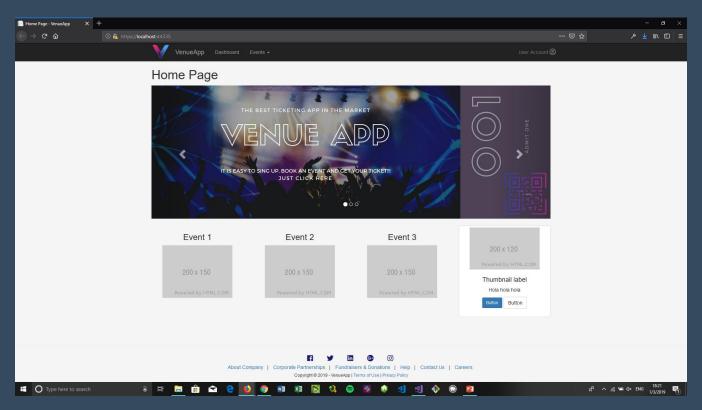


## Technology Stack

- Language: C#
- IDE: Visual Studio 2017
- Framework: ASP.NET Core MVC
- Template engine: Razor Pages
- Database engine: SQL Server Database (Managed by Microsoft Entity Framework)
- Front End and UI: Bootstrap, HTML and CSS
- API Interactions: JavaScript and Ajax

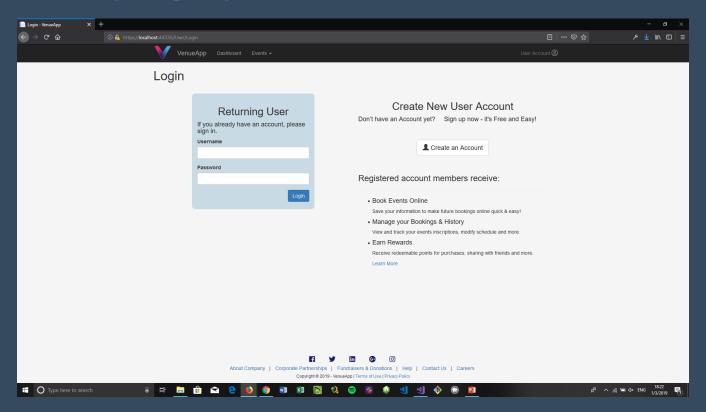


## Demo (Homepage)



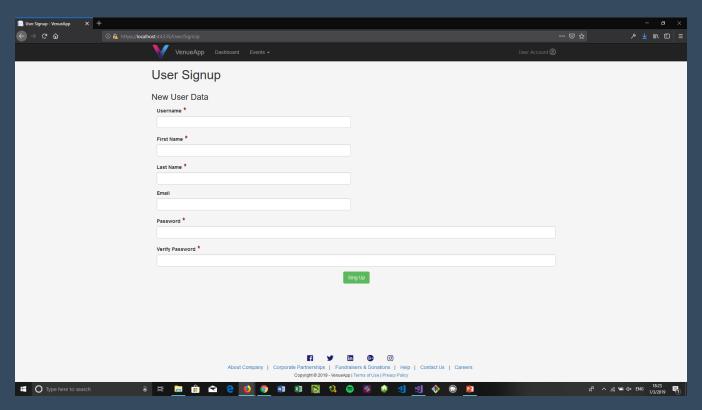


#### Demo (Login)



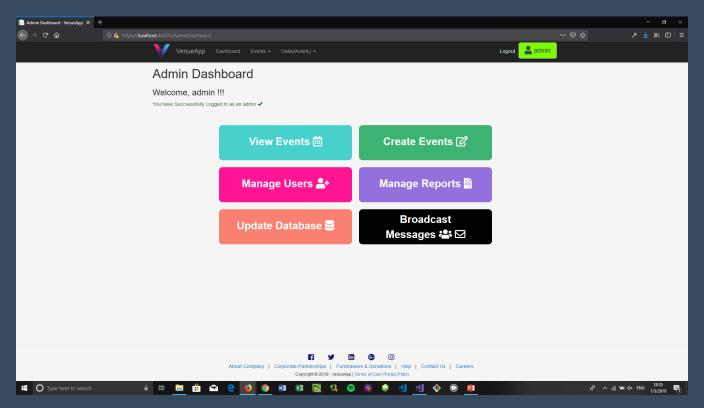


## Demo (User Signup)



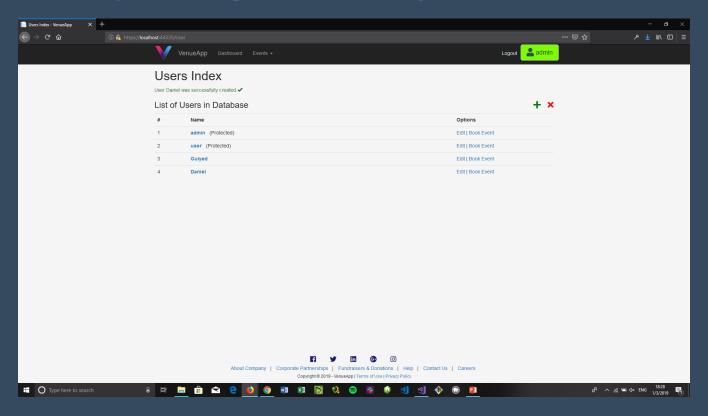


#### Demo (Admin Dashboard)



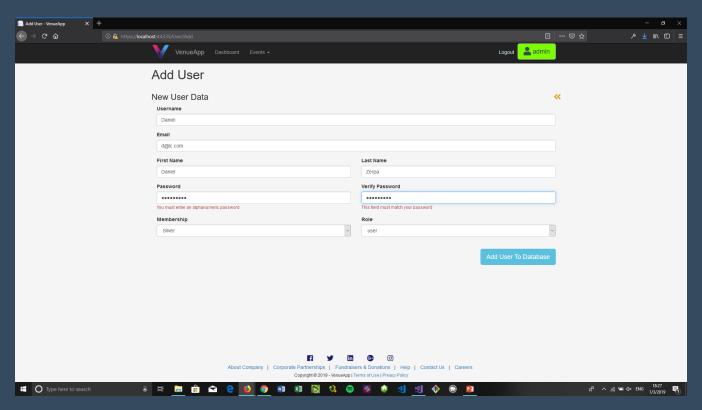


#### Demo (Manage Users by Admin - Index)



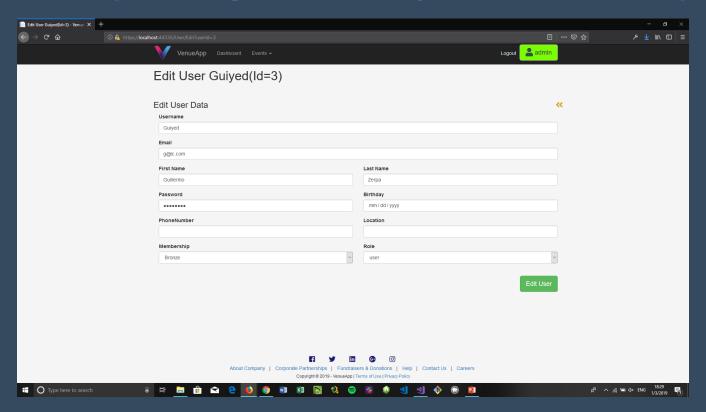


#### Demo (Manage Users by Admin – Add)



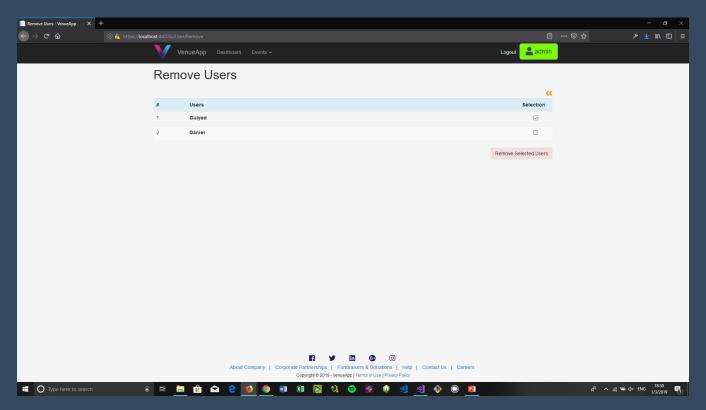


#### Demo (Manage Users by Admin – edit)



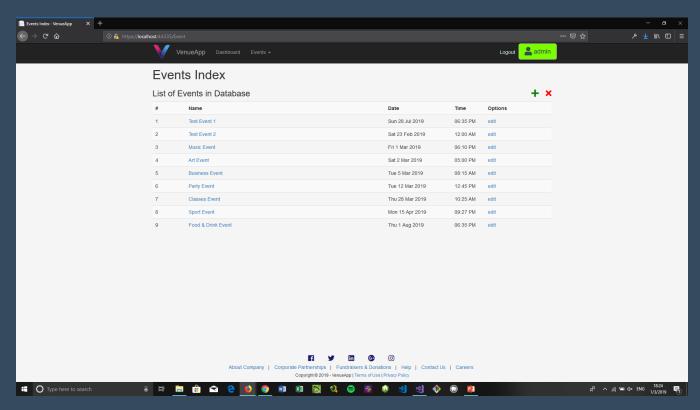


#### Demo (Manage Users by Admin - delete)



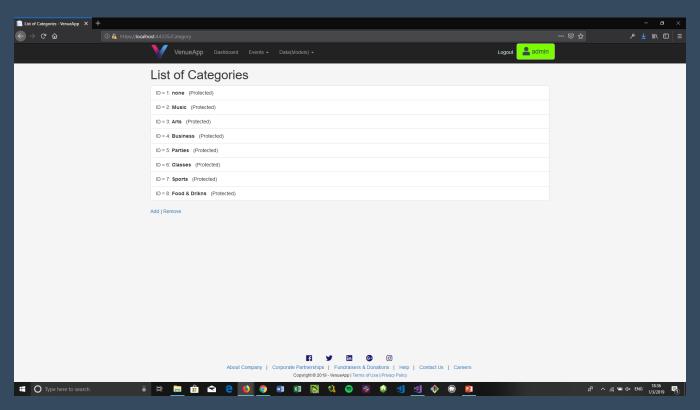


#### Demo (Manage Events by Admin)



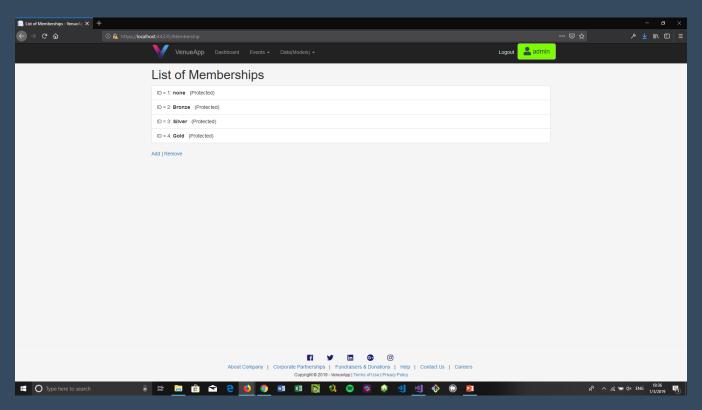


#### Demo (Manage Categories by Admin)



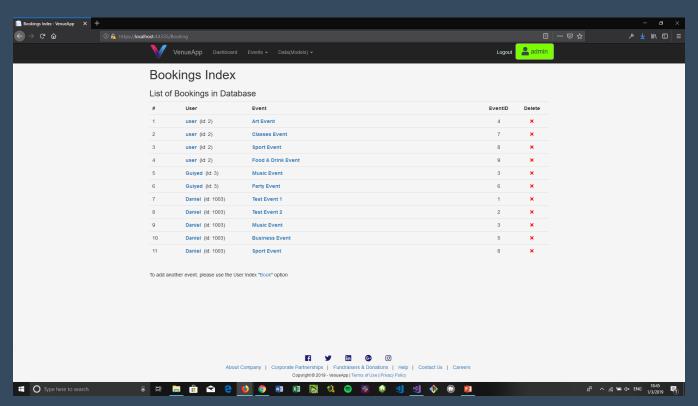


#### Demo (Manage Memberships by Amin)



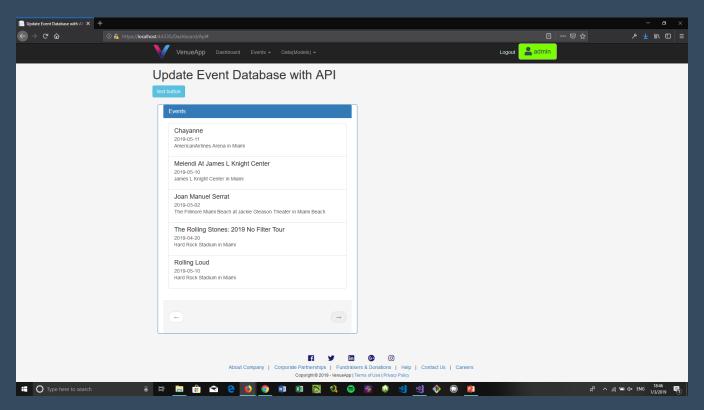


#### Demo (Manage Bookings by Admin)



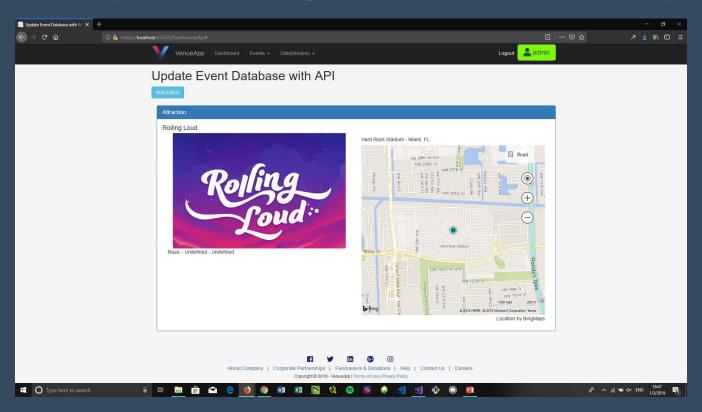


#### Demo (Interacting Event API - show)



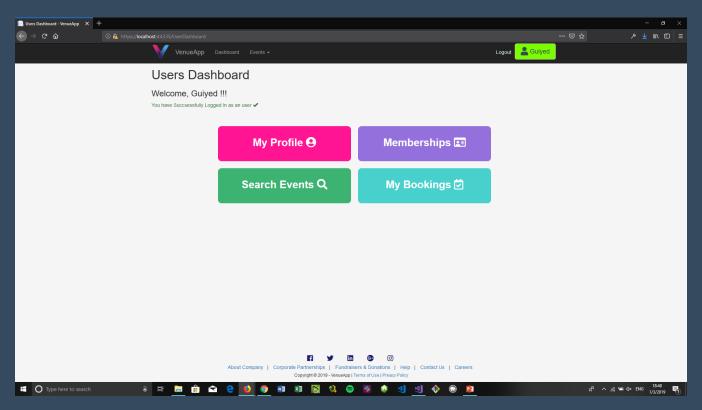


#### Demo (Interacting Event API - details)



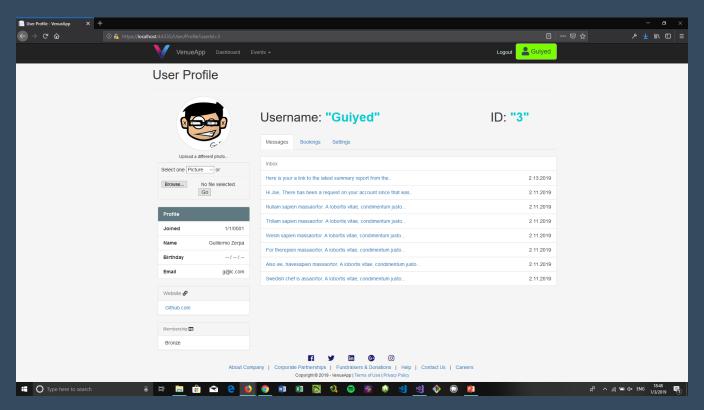


### Demo (User Dashboard)



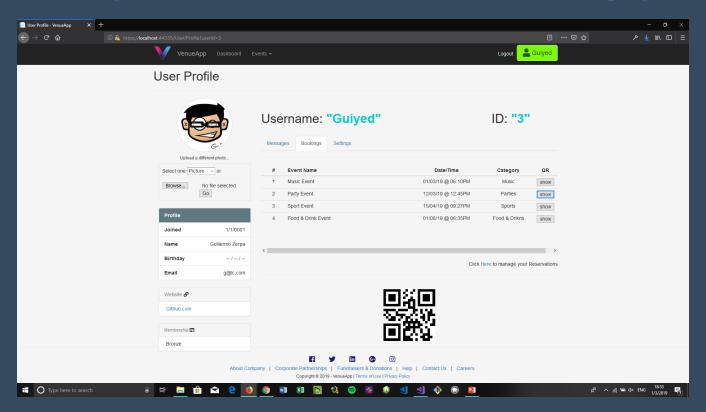


#### Demo (User Profile - Home)



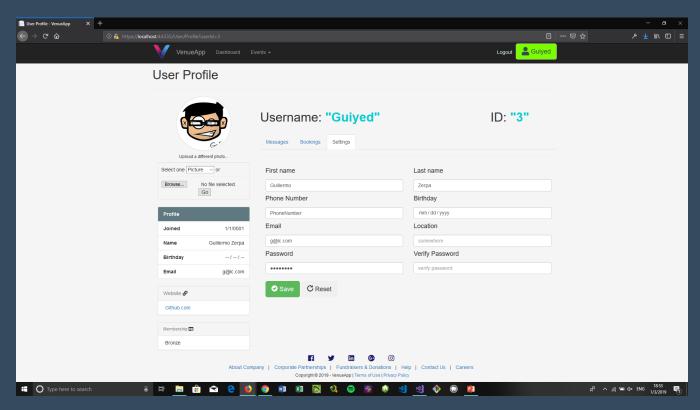


#### Demo (User Profile – View Bookings)



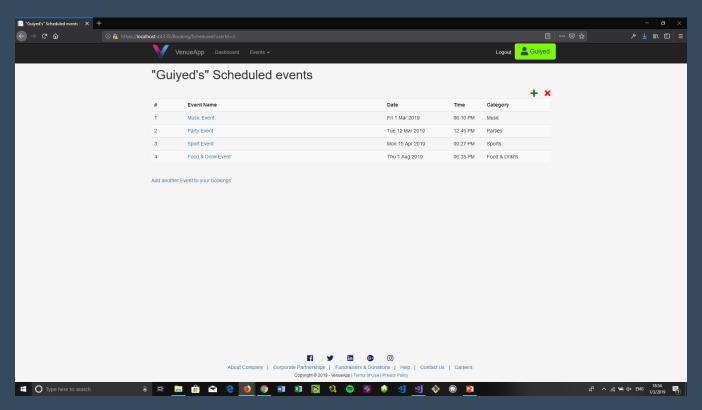


#### Demo (User Profile - Settings)





#### Demo (Manage Bookings by User)





### Demo (Solution Explorer)

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■ 6 VenueApp

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               using Microsoft.AspNetCore.Mvc;
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               using Microsoft.EntityFrameworkCore;
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               using VenueApp.Data;
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               using VenueApp.Models;
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▲ a ☐ Controllers

               using VenueApp.ViewModels;
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               using VenueApp.Helpers;
                                                                                                                                                                             ▶ a C* DashboardController.cs
                                                                                                                                                                             namespace VenueApp.Controllers
                                                                                                                                                                             ▶ a C* MembershipController.cs
                                                                                                                                                                             ▶ a C* RoleController.cs
                    public class UserController : Controller
                                                                                                                                                                             ▶ a C* TestController.cs
                                                                                                                                                                             ▶ a C# UserController.cs

■ B ■ Data

                         private VenueAppDbContext context;
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                         public UserController(VenueAppDbContext dbContext)
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■ B Models

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                              context = dbContext;
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## What I Learned

- This is the largest project I have built on any platform to date.
- I finally understood CSS and got proficient with Bootstrap 3.3.7
- I became more proficient reading documentation and searching information on Google.
- I learn the hard way how to implement sessions and roles. It is harder and more difficult to build than what I thought.
- I learned how to create separate Dashboards for users and admins.
- I learned how to integrate "tabs" in a single page. I used this for my profile view.



## What I Learned (continued)

- I learned some JavaScript via reverse engineering of running examples.
- I learned what is an API and how to interact or connect with an API via AJAX.
- I have also learned that there is always a free or almost free API for anything that you need. For example I used API's for pictures placeholders, Events Data (with a lot of useful and updated information), Map Location and QR codes.



## What's Next

- Deploy App on the Internet (Microsoft Azure, AmazonWebService)
- Refactor the whole app (DontRepeatYourself).
- Add better *Password* security and implement the "Forgot password" feature.
- Add Cookies and promotions.
- Implement and integrate an automatic "Broadcast message" feature (using email and/or SMS) for target marketing.
- Learn AngularJS and incorporate it to the project.

