Reservation System

July 9th 2020
Full Stack Development Project

Mikeo Skinner

About Me

I am a full stack web developer. After attending Centriq for the last 4 months, I feel confident enough to say this. After learning many languages such as C#, JavaScript and SQL. I realized that I still have a lot to learn and that I want to learn so much more. I knew that I wanted to work with technology and I did for 3 years at my last job a Jet.com but I still wanted to be more involved with the programming aspect of technology. The reason I love programming is because I love solving problems, its always been how my brain works and I love the community when it comes to coding. I like the aspect of there basically being limitless knowledge out there and dozens of different languages and syntaxes you can educate yourself with. For this project I chose the reservation system because it allowed me to combine two of my passions together, breakdancing and coding.

Project Brief

Reservation System – Create an application that allows users to make accounts for members that they want to register for reservations. Users should be able to register their members to any location however they can not be duplicated. Each class must also have a limit that cannot be exceeded by the user but can be exceeded by the administrator.

Administrator Capabilities
- CRUD functionality for Company Locations
- View all reservations
- Override location limits and place manual reservations
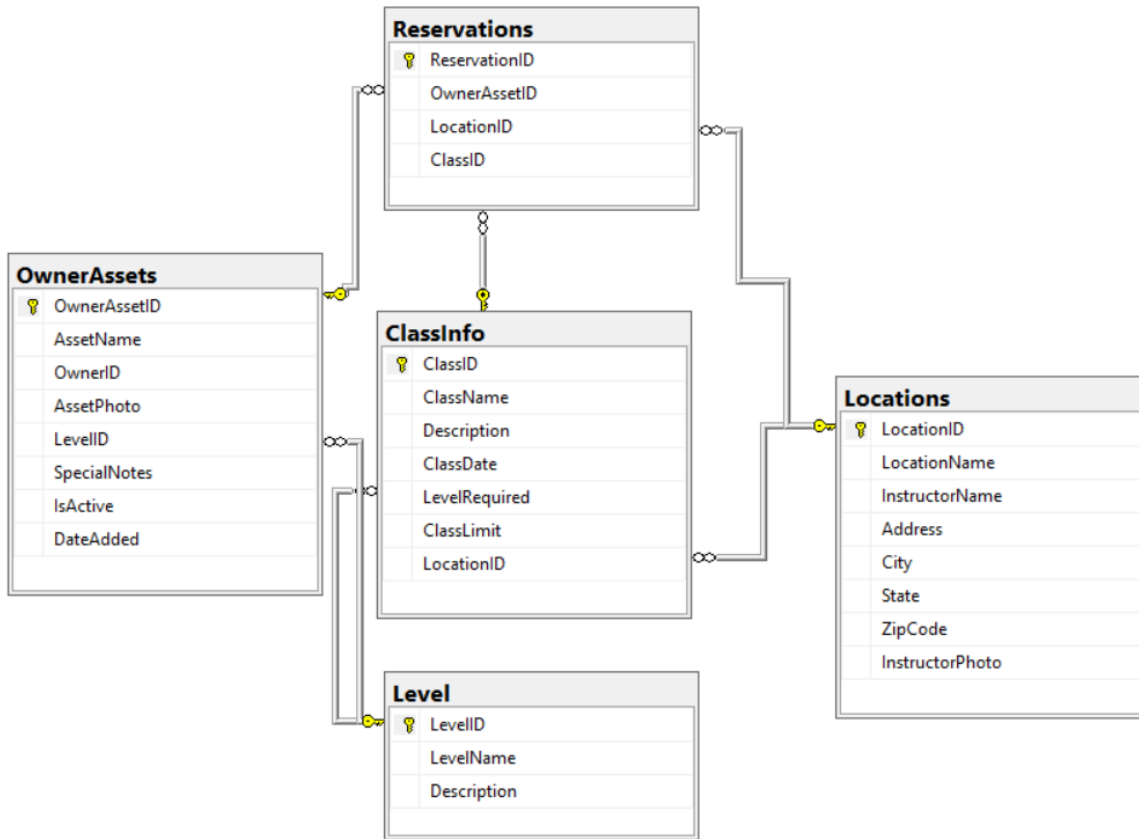- Add/update notes

Employee Capabilities
- View all reservations by location and notes
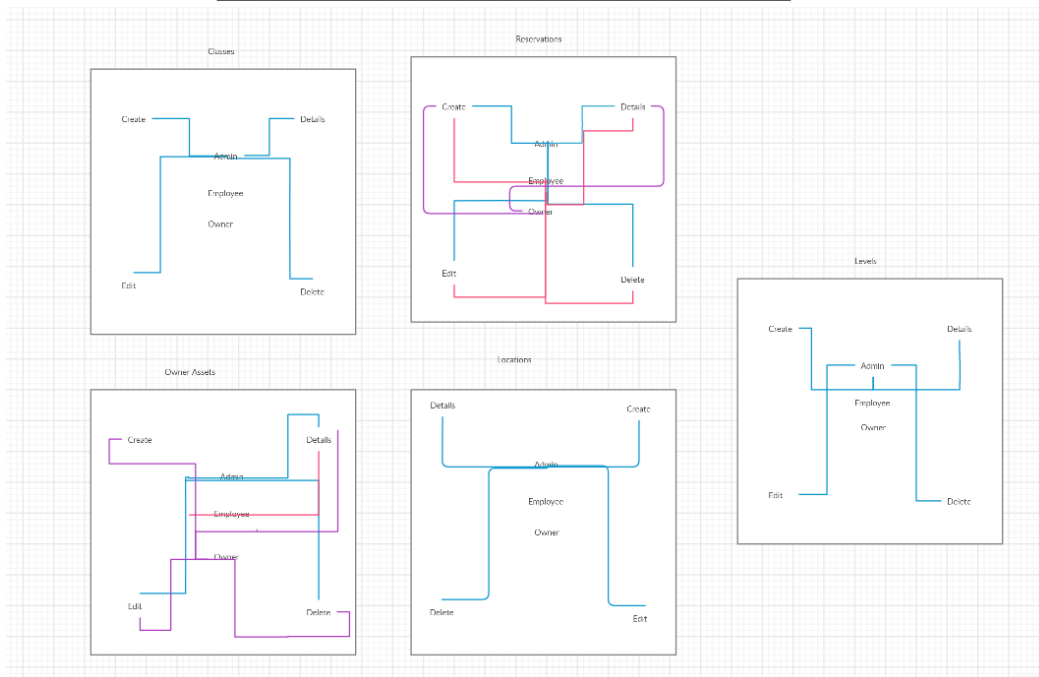- Add/update notes

Owner Capabilities
- CRUD functionality for their account
- CRUD functionality for their asset profile(s)
- Upload a photo for assets
- Add/update notes for their asset profile
- Place reservations for assets
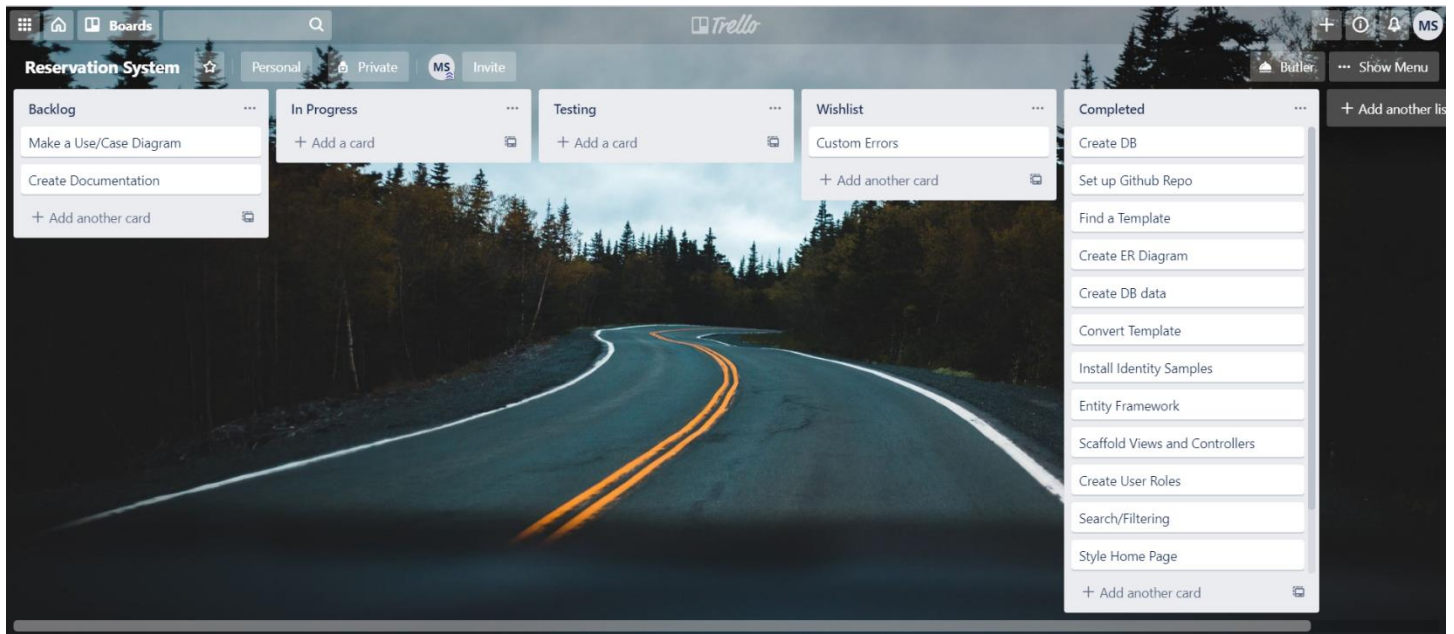- View their own asset profiles and reservations

SQL DB Diagram with PK/FK Relationships

Use Case Diagram showing CRUD functionality

Agile/Scrum

Used Trello as my Project Management System(PMS). This has helped me stay organized and allowed me to plan better as I was developing this project.

```csharp
int nbrRes = db.Reservations.Where(c => c.ClassID == reservation.ClassID).Count();
int nbrMax = db.ClassInfoes.Where(m => m.ClassID == reservation.ClassID).FirstOrDefault().ClassLimit;
int lvl = db.ClassInfoes.Where(l => l.ClassID == reservation.ClassID).FirstOrDefault().LevelRequired;
int memlvl = db.OwnerAssets.Where(q => q.OwnerAssetID == reservation.OwnerAssetID).FirstOrDefault().LevelID;
TempData["reservation"] = nbrRes;
if (ModelState.IsValid)
{
    if (User.IsInRole("Admin"))
    {
        db.Reservations.Add(reservation);
        db.SaveChanges();
    }
    //Add functionality for class restrictions
    if (db.Reservations.Where(o => o.OwnerAssetID == reservation.OwnerAssetID).Count() > 0)
    {
        return RedirectToAction("Index");
    }
    if (lvl != memlvl)
    {
        return RedirectToAction("Index");
    }
    if (nbrRes < nbrMax )
    {
        db.Reservations.Add(reservation);
        db.SaveChanges();

        return RedirectToAction("Index");
    }
}
```

Custom Code that denies a reservation if the level doesn't match or the class capacity is full. Admin can override these restrictions
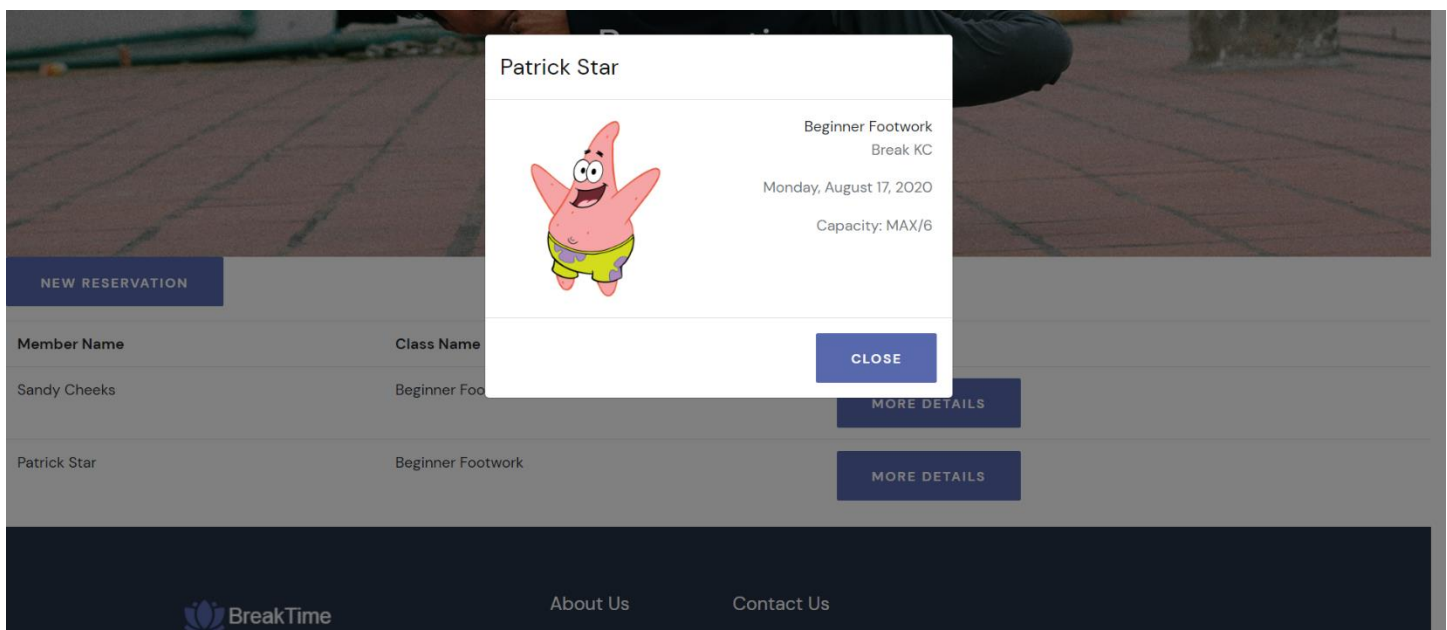
Custom Views

```
int reservation = item.ClassInfo.Reservations.Count();
ViewBag.Reservation = reservation;
if (reservation == item.ClassInfo.ClassLimit)
{
    ViewBag.Reservation = "MAX";
}
<tr>
    <td>
        @Html.DisplayFor(modelItem => item.OwnerAsset.AssetName)
    </td>
    <td>
        @Html.DisplayFor(modelItem => item.ClassInfo.ClassName)
    </td>
    <td>
        <button type="button" class="btn primary-btn" data-toggle="modal" data-target="#exampleModal-@item.ReservationID">More Details</button>

        <div class="modal fade" id="exampleModal-@item.ReservationID" tabindex="-1" role="dialog" aria-labelledby="exampleModalLabel">
            <div class="modal-dialog" role="document">
                <div class="modal-content">
                    <div class="modal-header">
                        <h4 class="modal-title" id="exampleModalLabel">@item.OwnerAsset.AssetName</h4>
                    </div>
                    <div class="modal-body">
                        <div class="detail-pic">
                            <img src="~/Content/img/@item.OwnerAsset.AssetPhoto" alt="@item.OwnerAsset.AssetName">
                        </div>
                        <div class="modal-right">
                        @Html.DisplayFor(modelItem => item.ClassInfo.ClassName)
                        <p>
                            @Html.DisplayFor(modelItem => item.Location.LocationName)
                        </p>
                        <p>
                            @string.Format($"{item.ClassInfo.ClassDate:D}")
                        </p>
                        <p>
                            Capacity:  @ViewBag.Reservation/@item.ClassInfo.ClassLimit
```


    Custom code that I implemented to allow users to view details of a reservation through a modal and also custom logic to show the reservation capacity.

Mikeo Skinner

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QUALIFICATIONS

- Solid foundational knowledge of designing and developing full-stack web applications using .NET framework.
- Critical thinking, problem solving, and great teamwork skills gained through four years in the manufacturing industry.

TECHNICAL SKILLS

Front End: HTML5, JavaScript, jQuery, jQueryUI, CSS3, Responsive/Mobile Web Development, Bootstrap, ReactJS

Middle Tier: Visual Studio, C#.NET, ASP.NET, LINQ, MVC, EF

Back End: ADO.NET, SQL, SQL Server, SSMSE

INDEPENDENT DEVELOPMENT PROJECTS

- **Personal Site**: www.mikeoskinner.com
- **StoreFront**: Created a secure application for managing product data. Application is built to simulate an online store front with a shopping cart. Administrators have the ability to manage product, category and vendor data.
- **S.A.T. Scheduling Administration Tool:** Created a secure application for managing product data. Application is built to simulate an online class scheduling system. Administrators will have the ability to manage students, courses, scheduled classes, and enrollments.
- **Final Project**: Created a secure data-driven ASP.NET MVC application from design through deployment for managing the tracking and organization of hardware and software within a company. Administrators have the ability to manage employee, department data and all details relating to assigned hardware and software.

TECHNICAL TRAINING AND EDUCATION

CENTRIQ TRAINING – KANSAS CITY, MO   **March 2020 – Present**

Full-Stack Web Developer Program

Core Competencies:

- MVC Framework
- Trouble Shooting & Debugging
- Source Control
- Agile/Scrum (Created Team Project)

- Website Deployment
- Pair Programming
- Code Review
- Professionalism, Teamwork, Problem Solving & Effective Communication

JOHNSON COUNTY COMMUNITY COLLEGE – OVERLAND PARK, KS   January 2015 – May 2018

Earned 64 College Credit Hours

UNIVERSITY OF KANSAS – LAWRENCE, KS   August 2018 – May 2019

Earned 20 College Credit Hours

P R O F E S S I O N A L   E X P E R I E N C E

JET.COM – GARDNER, KS   **June 2016 – March 2020**

Inventory Control Specialist

- Developed and implemented procedures that ensured adequate inventory levels were present.
- Investigated issues as they arose and solved problems in a timely manner.
- Communicated and worked with other departments to complete tasks.
- Trained other employees in cycle counting, auditing, and other inventory control tasks.
- Brainstormed ideas with management and other specialist to improve processes.
- Proficient in using Office 365 applications and running queries with SQL.
- Assisted other associates with their inventory related inquiries.