



*Paws N Claws Daycare Group*  
**Asset Reservation Management Project**

A .NET Framework, MVC, Data-Driven Application

April 29, 2021

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**About Me**

*Sawyer Gobin*

I believe in approaching problems with an innovative eye and empathetic heart.

I'm a Full-Stack Web Developer from Kansas City, Missouri trained in the .NET Stack to create dynamic web applications.

This project afforded me the opportunity to bring an application from conception to Version 1 that would be both customer facing and used internally by employees and administrators.



## **The Development Process**

*What did I learn about myself?*

- When tackling a complex and intricate project I highly value having my goals/checkpoints laid out in front of me.
- Comprehensive planning helps ensure that undertakings are completed accurately and fully on the first attempt.

*Why did I choose development?*

- I feel a fundamental joy when taking part in the creative process. Each puzzle piece falling into place is satisfying and a confirmation that what I'm doing is right for me.
- Development perfectly encapsulates that process and allows me to apply problem solving and specialized knowledge in new situations every day.

*Why did I choose this project?*

- Many of my previous projects have been of a fantastical/abstract nature and I was eager for the opportunity to design an app with real-world use in mind.
- I was intrigued by the idea of an interface being both customer facing and intended for internal use and was eager to delve into the nitty gritty of what that meant for UX/UI.



## **Project Requirements**

*-The company has multiple locations and needs an online application that will allow clients to register themselves and set up a reservation. Clients can schedule at any location, however; each location has a limit to the number of reservations that it can take at one time. If the location is at capacity clients should not be able to create a reservation. Company Administrators, however, can override the limit and manually enter reservations beyond the limit.*

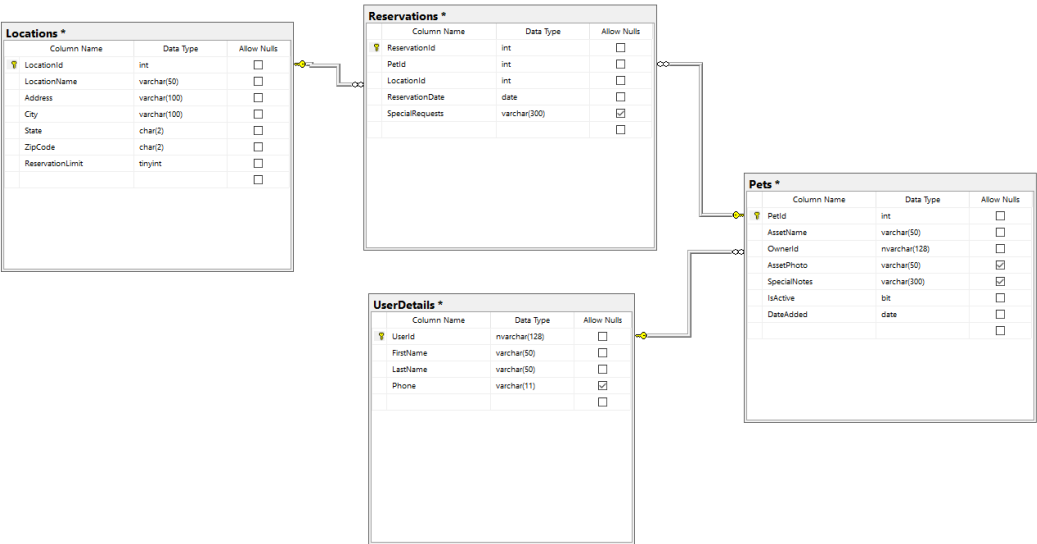
-Roles and their respective CRUD Functionality restrictions were detailed by the client. No Identity Matrix was provided.

-No database was provided but a suggested schema was.

-Branding and assets were not provided and were required to be custom made.



PNC Database Schema:



My Identity Matrix:

|    | A            | B            | C         | D                 | E | F                      |
|----|--------------|--------------|-----------|-------------------|---|------------------------|
| 1  | Locations    | PetOwner     | Employee  | Admin             |   | <b>Roles</b>           |
| 2  | Index        | x            | x         | x                 |   | Admin = All            |
| 3  | Details      | x            | x         | x                 |   | Others = None          |
| 4  | Create       |              |           | x                 |   |                        |
| 5  | Edit         |              |           | x                 |   |                        |
| 6  | Delete       |              |           | x                 |   |                        |
| 7  |              |              |           |                   |   |                        |
| 8  |              |              |           |                   |   |                        |
| 9  | Reservations | PetOwner     | Employee  | Admin             |   | <b>Users</b>           |
| 10 | Index        | x - Filtered | x         | x                 |   | Admin = All            |
| 11 | Details      | x - Filtered | x         | x                 |   | Others = Just 1        |
| 12 | Create       | x - Filtered |           | x+Override Limits |   |                        |
| 13 | Edit         |              | x-Limited | x                 |   | <b>Anonymous Users</b> |
| 14 | Delete       |              |           | x                 |   | Home Index             |
| 15 |              |              |           |                   |   | Contact                |
| 16 |              |              |           |                   |   | Locations              |
| 17 | Pets         | PetOwner     | Employee  | Admin             |   | Register/Login         |
| 18 | Index        | x - Filtered | x         | x                 |   |                        |
| 19 | Details      | x - Filtered | x         | x                 |   |                        |
| 20 | Create       | x - Modified |           | x                 |   |                        |
| 21 | Edit         | x - Filtered | x - Notes | x                 |   |                        |
| 22 | Delete       | x - Soft Del |           | x - Soft Del      |   |                        |



I chose to include custom user details outside the functionality provided by Identity Samples

This code integrates custom user information with that provided by IS

Below is an early iteration of registration along with its finalized counterpart:

```
#region CustomUserDetails
UserDetail newUserDetails = new UserDetail();
newUserDetails.UserId = user.Id;
newUserDetails.FirstName= model.FirstName;
newUserDetails.LastName = model.LastName;
if (model.Phone != null)
{
    newUserDetails.Phone = model.Phone;
}
else
{
    newUserDetails.Phone = "[N/A]";
}

FinalProjectEntities db = new FinalProjectEntities();
db.UserDetails.Add(newUserDetails);
db.SaveChanges();
#endregion
```

## Sign Up

Create an account to starting finding the purrfect place to board your furry friends!

|                  |  |
|------------------|--|
| First Name       | <input type="text" value="PetOwner"/>              |
| Last Name        | <input type="text" value="POLastName"/>            |
| Email Address    | <input type="text" value="PO@pnc.com"/>            |
| Phone Number     | <input type="text" value="1234567899"/>            |
| Password         | <input type="password" value="ex. F1d0'sBFF-99!"/> |
| Confirm password | <input type="password" value="Same as above"/>     |

Already signed up? Login [by clicking here](#) instead.

© 2021 - My ASP.NET Application

|                  |   |
|------------------|---|
| First Name       | <input type="text" value="ex. Jane"/>                             |
| Last Name        | <input type="text" value="ex. Doe"/>                              |
| Email Address    | <input type="text" value="ex. Jane&amp;Fido@mansbestfriend.net"/> |
| Phone Number     | <input type="text" value="Optional but helpful"/>                 |
| Password         | <input type="password" value="ex. F1d0'sBFF!"/>                   |
| Confirm password | <input type="password" value="Same as above"/>                    |

Already signed up? Login [by clicking here](#) instead.





A unique aspect of the project is the ability for both customers and employees to use the site while viewing and interacting with information in different fashions.

As an example, here is the Locations View as seen by an unauthorized user compared to the same view seen by an Administrator. Note the appearance of more information.

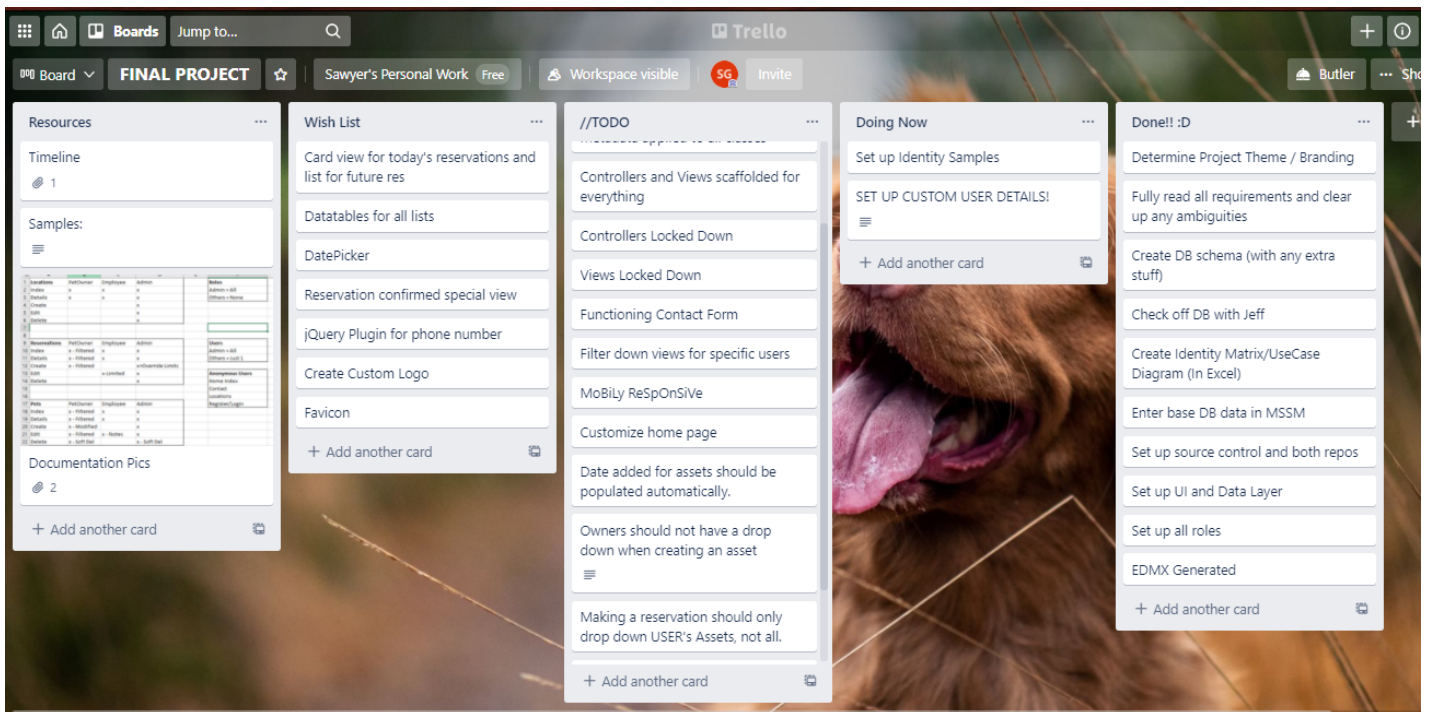
| Our Locations            |               |       |                      |
|--------------------------|---------------|-------|----------------------|
| Daycare Name             | City          | State |                      |
| City Tails Pet Boarding  | Kansas City   | MO    | <a href="#">Info</a> |
| Fur Friends Hotel        | Overland Park | KS    | <a href="#">Info</a> |
| Just-Like-Home Daycare   | Joplin        | MO    | <a href="#">Info</a> |
| Cozy Kennels Pet Sitting | Kansas City   | MO    | <a href="#">Info</a> |

Admin Version Below:

| Our Locations                    |                      |               |       |          |                   |  |
|----------------------------------|----------------------|---------------|-------|----------|-------------------|--|
| <a href="#">ADD NEW LOCATION</a> |                      |               |       |          |                   |  |
| Daycare Name                     | Address              | City          | State | Zip Code | Reservation Limit |  |
| City Tails Pet Boarding          | 8859 Main St         | Kansas City   | MO    | 64154    | 3                 | <a href="#">Info</a>   <a href="#">Edit</a>   <a href="#">Delete</a> |
| Fur Friends Hotel                | 3262 Oak Drive       | Overland Park | KS    | 2495     | 4                 | <a href="#">Info</a>   <a href="#">Edit</a>   <a href="#">Delete</a> |
| Just-Like-Home Daycare           | 7485 W 14th St       | Joplin        | MO    | 64801    | 5                 | <a href="#">Info</a>   <a href="#">Edit</a>   <a href="#">Delete</a> |
| Cozy Kennels Pet Sitting         | 881 S Kensington Ave | Kansas City   | MO    | 64185    | 4                 | <a href="#">Info</a>   <a href="#">Edit</a>   <a href="#">Delete</a> |



During the development process I kept my thoughts and resources organized using Trello. An early snapshot of my kanban style board is seen here:





Creating a reservation takes the user through custom pathing designed to make understanding the situation as easy as possible.

Functionality is different depending on the user's assigned role with a Pet Owner (Customer) having the most "curated" experience.

A screenshot of a 'Choose a Reservation Date' interface. It features a date picker for April 2021. The calendar grid shows days from Sunday to Saturday. The date 27 is highlighted in yellow. A red rectangular box highlights the date 3 on the first row of the calendar.A screenshot of a 'Choose a Reservation Date' form. It has a text input field at the top, a 'SELECT DATE' button in the middle, and a 'BACK TO ALL RESERVATIONS' button at the bottom. The buttons are highlighted with red rectangular boxes.

Noteworthy: The dropdown menus here are dynamically generated to include the user's pets and locations with space left for reservations.

A screenshot of a 'Making a Reservation' form for Thursday, April 29, 2021. The form is titled 'Reservation Details' and includes three dropdown menus: 'Pet Name' (Oreo), 'Available Locations' (Just-Like-Home Daycare), and 'Special Requests' (Extra outdoors time for Oreo, please). Below the form is a 'MAKE RESERVATION' button, and at the bottom right is a 'CANCEL RESERVATION' button. The background is light blue with faint paw prints.





This code allows for the filtered data to be sent to the view to correctly populate the Reservation Create View.

```
//Custom DatePick View Here +++++
[Authorize(Roles = "Admin, Pet Owner")]
public ActionResult DatePick()
{
    return View();
}

[Authorize(Roles = "Admin, Pet Owner")]
[HttpPost]
public ActionResult DatePick(DateTime resDate)
{
    return RedirectToAction("Create", new { resDate = resDate });
}
```

```
// GET: Reservations/Create
[Authorize(Roles = "Admin, Pet Owner")]
public ActionResult Create(DateTime resDate)
{
    ViewBag.ResDate = resDate; //This allows the date to be displayed in the view

    if (User.IsInRole("Pet Owner"))
    {
        //Used to filter the pets list in the case of user being a PO
        var userId = User.Identity.GetUserId();

        //This is the filtering for reservations to match the selected date and check that it's LESS than the res limit
        var locsList = db.Locations.Where(x => x.Reservations.Where(y => y.ReservationDate == resDate && y.LocationId == x.LocationId).Count() < x.ReservationLimit);

        ViewBag.LocationId = new SelectList(locsList, "LocationId", "LocationName");
        //This .Where ensures owners only see their own pets
        ViewBag.PetId = new SelectList(db.Pets.Where(x => x.OwnerId == userId), "PetId", "AssetName");
        return View();
    }

    //this will only run (and return the default list) if the user ISN'T a PO
    //These 2 lists aren't filtered because we don't want those restrictions to apply to admins
    ViewBag.LocationId = new SelectList(db.Locations, "LocationId", "LocationName");
    ViewBag.PetId = new SelectList(db.Pets, "PetId", "AssetName");
    return View();
}
```



### **Additional Project Details:**

- The site is optimized to include smart-lossy compression on images, bundled styles and scripts, and minified .css and .js files.
- The site is responsive for mobile devices: check it out for yourself on your phone: just navigate to [fsdp.sawyergobin.com](http://fsdp.sawyergobin.com)
- A functional contact form is available for registered users that sends an automated email to my personal outlook address.
- I utilized unique code for an image upload service, allowing a pet owner to choose an image to upload and have displayed along with their pet. The service creates a thumbnail version of the image and saves both images to the web server.
- The DatePicker Plugin by jQueryUI is utilized for the reservation creation process and custom JS was written to format a registering user's phone number as they type it in.
- The home page banner displays different buttons based on user role: Unauthorized users are prompted to login, Pet Owners are prompted to make a reservation, and employees are ushered to the All Reservations View.



# Sawyer Gobin

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Portfolio at: [sawyergobin.com](http://sawyergobin.com)  
Located in: Kansas City, Missouri



## FULL STACK WEB DEVELOPER

**Full Stack Web Application Design**

**Agile/Scrum Methodology**

**C# Fundamentals**

**Collaborative Problem Solver**

**Software Development Lifecycle**

**Restful API Design**

**Unit Testing**

**Lifelong Learner Mentality**

**Responsive Web Design**

**ReactJS Framework**

**.NET Framework**

**MVC Architecture**

## TECHNICAL AND PROFESSIONAL SKILLS

**Front End:** HTML5, JavaScript, jQuery, jQueryUI, CSS3, Bootstrap, ReactJS, JSX Syntax

**Middle Tier:** MVC, C#.Net, ASP.Net, LINQ Syntax, Entity Framework, XML Documentation, Visual Studio, VS Code

**Back End:** ADO.NET, SQL, MS SQL Server, SSMSE, Restful API Architecture, Postman API Testing

**Professional Skills:** Critical Thinking, Insightful Troubleshooting, Effective Communication, Empathetic Teamwork, Project Management, Strong Fundamentals



## INDEPENDENT DEVELOPMENT PROJECTS

**Personal Site:** Visit [sawyergobin.com](http://sawyergobin.com) for a complete portfolio view. The site was built using bootstrap and jQuery.

**Centriq Full-Stack Hackathon:** Volunteered to participate in a 12-hour marathon development process. Completed an entire Full-Stack Application in a 4-person development team.

**StoreFront:** Created a secure application for managing product data. Application is built to simulate a Virtual Vending Machine (store front) with a shopping cart. Administrators have the ability to manage user, 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 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 data, department data, and all details relating to assigned hardware and software.

## EDUCATION

**Full Stack Web Developer Program** - *Centriq Training, Kansas City, MO*

January 2021 - *Anticipated Graduation: May 2021*

**Awarded:** Featured Student Award - Recognized for technical skill and dedication to the program

- GIT - Source Control Utilization
- Pair Programming
- Code Review
- Responsive Web Development
- MVC Framework
- Agile/Scrum Methodology

**Instrumental Music Education** - *UMKC Conservatory, Kansas City, MO*

August 2014 - May 2016





- **Awarded:** Chancellor's Scholarship -An academic-merit, full-ride scholarship
- Selected as 1 of 4 undergraduates to present research thesis at post-grad research seminar.

## EXPERIENCE

### **Supervisor** - *Abuelo's Mexican Food Embassy*, Kansas City, MO

January 2019 - March 2020

- Acquired expertise in troubleshooting Point-Of-Sale system and oversaw upkeep of hardware and software of POS system.
- Educated 5+ new employees per month on the use of POS systems.
- Rewrote training curriculum to create more updated and effective training resources.
- Organized and mobilized a team of 25+ employees daily.
- Ensured all parties were empowered to perform their jobs and communicate effectively.
- **Awarded:** Employee of the Year: 2019

### **Manager** - *Melting Pot*, Kansas City, MO

January 2017 - January 2019

- Oversaw all restaurant operations, employees, scheduling, guest satisfaction, and light maintenance.
- Facilitated a 20% rise in Average Guest Service Index over 6 months.
- **Awarded:** Rookie of the Year: 2017