Rachel Punches

OffLeash Academy
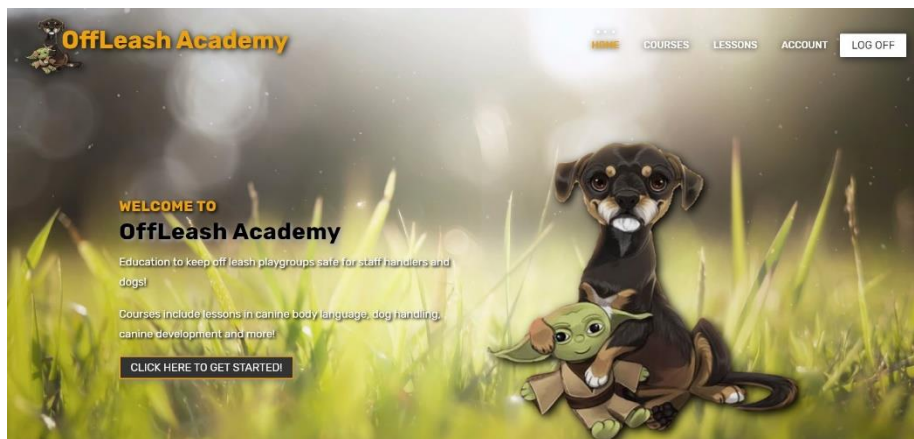
Learning Management System

December 13, 2019

My Project & Me

This learning management system is modeled after an online training system for dog daycares and their employees. I worked in the pet care industry for 7 years where I started out as a handler, working in the playgroups with as many as 50-60 dogs at a time.

When it came time to choose a final project, life came full circle for me as I knew the learning management system was not only a project I was interested in, but I project that I could put to use at the daycare. The current daycare I work at has no formal training system in place so I'm excited to implement this website once the content and functionality is tailored to their needs.

With this system, you are able to view a Lesson (which can include a PDF, image or video file for resource purposes) which is assigned to a Course. Once you have viewed all the Lessons under that Course, you have "completed" the Course and will be listed as such on the Completed Courses page. You are able to see how many Lessons you have viewed on the Lessons Viewed page. If you view a Lesson more than once, it will not count towards your total for the Course. Once you have completed a Course, your manager will be notified via email.

I think one of the things that I enjoyed most and that gave me the most satisfaction was applying the motion background to the Layout page. I spent some time searching and testing out different methods to implement the code to make it work and when it did, I was pretty surprised I was able to pull it off.

One of my biggest challenges was coding the functionality of creating a CompletedCourse once the user viewed all the Lessons associated with the Course. I had several different versions of the code in the controller, but I just couldn't seem to get the CompletedCourse to create. I ended up enlisting the help of some fellow classmates, and with another perspective, I was able to see where I was going wrong and why my current code wasn't working the way I wanted it to. Through this project I learned it's important to take a step back and look at it from a different angle, talk it through with someone even, make sure that there's something simple I'm not missing before spending too much time trying to reinvent the wheel.

```
var totalViewed = db.LessonViews.Where(x => x.Lesson.CourseId == lesson.CourseId).Count();


if(totalViewed == lesson.Cours.Lessons.Count)
{
    // Create CourseCompleted

    CourseCompletion completedCourse = new CourseCompletion() { UserId = User.Identity.GetUserId(), CourseId = lesson.CourseId, DateCompleted =
      DateTime.Now };

    db.CourseCompletions.Add(completedCourse);
    db.SaveChanges();
```
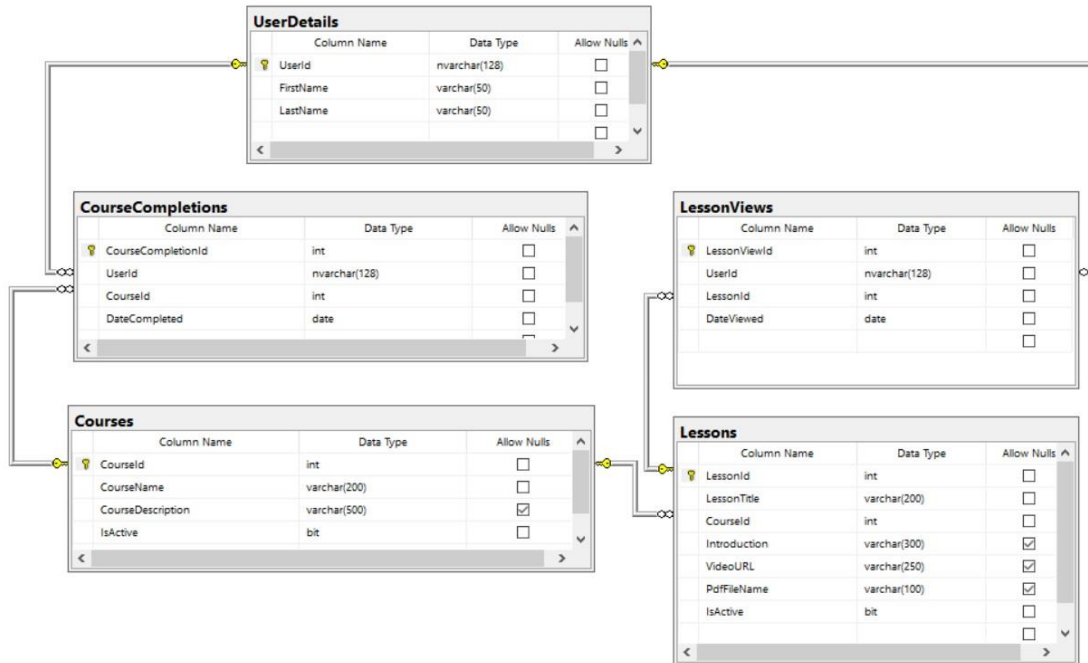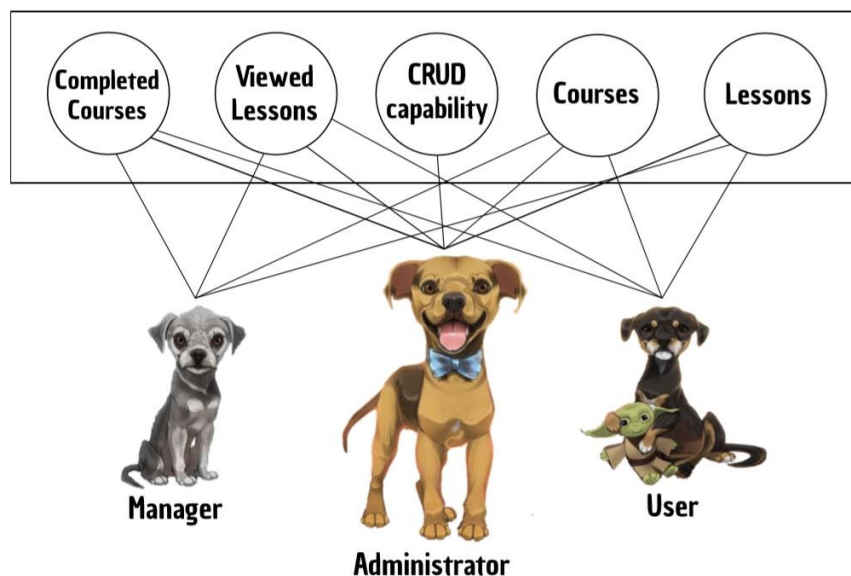
Requirements

- Ability to operate site via mobile device
- Users should be able to see all courses
- DateViewed and DateCompleted should be populated automatically
- Admin should be able to add a YouTube video to a Lesson via URL link and have it play on a custom player on website.

SQL Schema Diagram

UserDetails

Column Name	Data Type	Allow Nulls
UserId	nvarchar(128)	☐
FirstName	varchar(50)	☐
LastName	varchar(50)	☐
		☐

CourseCompletions

Column Name	Data Type	Allow Nulls
CourseCompletionId	int	☐
UserId	nvarchar(128)	☐
CourseId	int	☐
DateCompleted	date	☐

LessonViews

Column Name	Data Type	Allow Nulls
LessonViewId	int	☐
UserId	nvarchar(128)	☐
LessonId	int	☐
DateViewed	date	☐
		☐

Courses

Column Name	Data Type	Allow Nulls
CourseId	int	☐
CourseName	varchar(200)	☐
CourseDescription	varchar(500)	☑
IsActive	bit	☐

Lessons

Column Name	Data Type	Allow Nulls
LessonId	int	☐
LessonTitle	varchar(200)	☐
CourseId	int	☐
Introduction	varchar(300)	☑
VideoURL	varchar(250)	☑
PdfFileName	varchar(100)	☑
IsActive	bit	☐
		☐

Use/Case Diagram

This system allows the administrator to create Courses and Lessons for those Courses (including PDF or image uploads or video links for any resources necessary). It also gives the administrator full Create, Update and Delete capabilities for all the pages.

Customized Code

I prefer cards over lists when I can/it works. I took the Courses and Lessons pages and turn those lists into cards. I had to change some of the code in the View as well as the CSS (which I added to my CustomStyle.css page).

Courses view as a List

Initial scaffolding of Courses view into cards

Final styling of Courses cards

HTML code on Courses Index

```
<div class="row centerRow">
    @foreach (var item in Model)
    {
        <div class="col-lg-3 col-md-6 col-sm-11">
            <div class="course-item">
                <div class="course-br">
                    <div class="course-title">
                        <h2>
                            <a href="@Url.Action("Details", new { id = item.CourseId })">
                                @Html.DisplayFor(modelItem => item.CourseName)
                            </a>
                        </h2>
                    </div>
                    <div class="course-desc">
                        @*@Html.DisplayNameFor(model => model.CourseDescription)*@
                        <p> @Html.DisplayFor(modelItem => item.CourseDescription) </p>
                    </div>
                </div>
                <div class="course-meta-bot">
                    <hr />
                    @if (item.IsActive == true)
                    {
                        <p style="float:left;">Available</p>
                    }
                    else
                    {
                        <p style="color: red; font-style:italic; float: left;">Unavailable</p>
                    }
                    <div class="textRight">
                        @if (User.IsInRole("Admin"))
                        {
                            @Html.ActionLink("Edit", "Edit", new { id = item.CourseId }) @:|
                            @Html.ActionLink("Delete", "Delete", new { id = item.CourseId })
                        }
                    </div>
                    <div class="clearfix"></div>
                </div>
            </div>
        </div><!-- end col -->
```

CSS code for Courses cards

```
118     /*Course Cards*/
119     .course-br {
120         min-height: 304px;
121     }
122
123     .course-item {
124         filter: drop-shadow(5px 5px 7px black);
125         margin-bottom: 30px;
126         opacity: 90%;
127     }
128
129     .activeBox {
130         position: absolute;
131         bottom: 80px;
132         font-style: italic;
133     }
134
135     .courseBox {
136         position: absolute;
137         bottom: 60px;
138         font-style: italic;
139     }
140
141     .course-meta-bot ul {
142         text-align: right;
143     }
144
145     .course-meta-bot, .course-br {
146         border: none;
147     }
```

Picture Randomizer

I decided to use pictures for my Lessons Details pages because I wanted them to have pictures, but I hadn't included pictures for the Lessons in the database. For the time being, I decided a picture randomizer would be the best way to solve this problem. I ended up coding out three different JavaScript versions of the randomizer via the research I did online.

HTML Code

```
42                    </div>
43                        <div class="col-lg-5 col-md-11 col-sm-11 lessonPic img-fluid img-rounded"></div>
44                    </div>
```

JavaScript Version I.

This code starts with all the images in an array. It then chooses an image at random using the random number method and appends it to the file path.

```
67          //var path = '/Content/images/lessons/',
68          //    imgs = ['lesson1.jpg', 'lesson2.jpg', 'lesson3.jpg', 'lesson4.jpg', 'lesson5.jpg', 'lesson6.jpg', 'lesson7.jpg', 'lesson8.jpg', 'lesson9.jpg',
            //    'lesson10.jpg', 'lesson11.jpg', 'lesson12.jpg', 'lesson13.jpg', 'lesson14.jpg', 'lesson15.jpg', 'lesson16.jpg'],
69          //    i = Math.floor(Math.random() * imgs.length);
70          //$('.Mus').append("<img src='" + path + imgs[i] + "'>").hide().fadeIn(2000);
```

JavaScript Version II.

I wanted to make the code a little easier to read and simplify the process to add pictures to the code if I wanted to in the future. With version II, I renamed the files and the changed the file path that the images were appending to. Using a range method as a range of numbers to choose from, the random number method picked a number and appended it to the file path.

```
72          //function range(start, end) {
73          //    var myArray = [];
74          //    for (var i = start; i <= end; i += 1) {
75          //        myArray.push(i);
76          //    }
77          //    return myArray;
78          //};
79          //var path = '/Content/images/handlers/h',
80          //    //imgs = new Array();
81          //    imgs = range(1, 11),
82          //    i = Math.floor(Math.random() * imgs.length);
83          //$('.lessonPic').append("<img src='" + path + i + ".jpg'>").hide().fadeIn(2000);
```
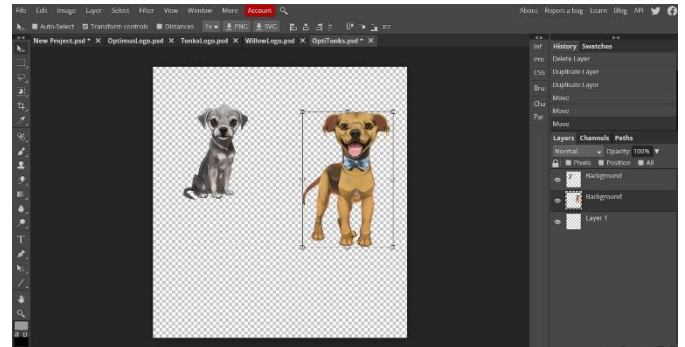
Final JavaScript Version

After coding out the previous version, I realized there was probably a way easier and much more efficient way to use the random number method by cutting out the range as the "middle man." I set the random number method to pick a number between 1 and 11 (the files were named h1 – h11) and append that number to the file path.
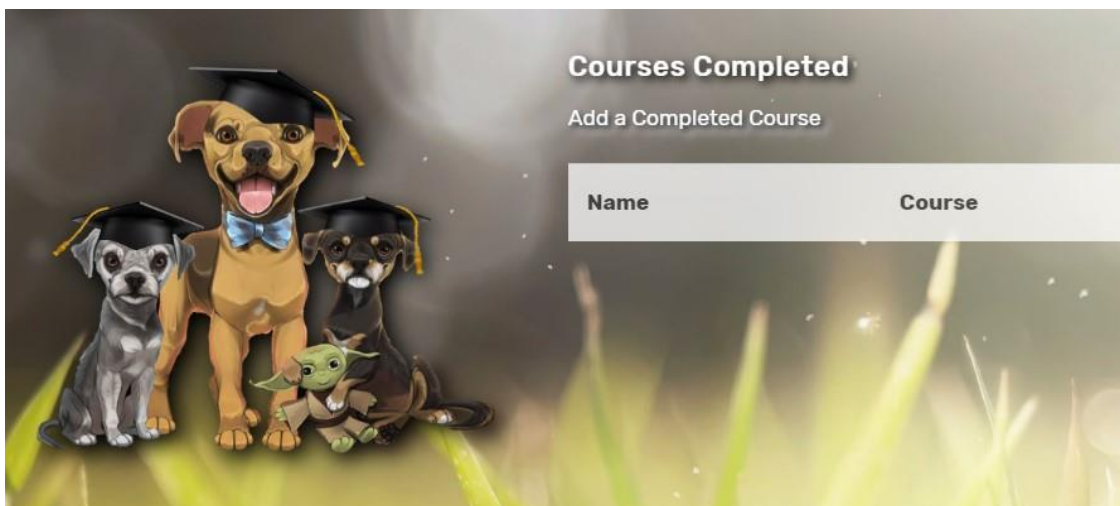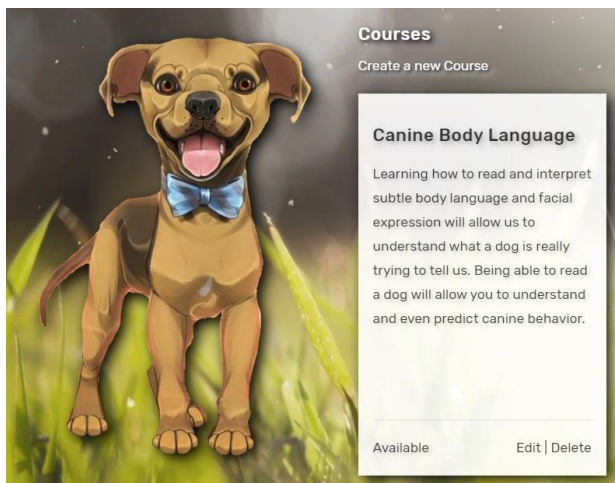
```
85          var path = '/Content/images/handlers/h',
86              i = Math.floor((Math.random() * 11) + 1);
87          $('.lessonPic').append("<img src='" + path + i + ".jpg'>").hide().fadeIn(2000);
```

Customized Design

Meet Tonks, Optimus and Willow, the mascots of my LMS. Since I was used a template and converted it over, I wanted to make sure to personalize the site as much as possible and add what I could to the design. I used the site Photopea.com to edit a picture I had made of them a couple years ago.

I then used the .png files I created and "sprinkled" them throughout the site, adding a few more customizations when they were relevant (ie. graduation caps).

RACHEL PUNCHES

FULL-STACK DEVELOPER

231-557-6950 | rpunches@gmail.com

www.rachelpunches.com

QUALIFICATIONS

- Solid foundational knowledge of designing and developing full-stack web applications using .NET framework.
- Organized with strong analytical abilities.
- Creative thinking.
- Ability to multi-task and adapt.
- Creating a positive working environment.

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.rachelpunches.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   August 2019 – 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

UNIVERSITY OF KANSAS – OVERLAND PARK, KS   January 2018 – July 2018

Full-Stack Flex Web Developer Program

UNIVERSITY OF KANSAS – LAWRENCE, KS   August 2006 – June 2009

Bachelor's Degree – Communications Studies

PROFESSIONAL EXPERIENCE

HOME SWEET HOME – LAWRENCE, KS   February 2019 – August 2019
Social Media Manager | Dog Handler

- Employed social media strategies to promote company's products and services.
- Created, posted and managed updates and responses for all online social media content.
- Created exciting promotions, contests and original content in line with company goals.

AMERICAN HOLISTIC NURSES ASSOCIATION – TOPEKA, KS   October 2018 – January 2019
Events & Promotions Coordinator

- Organized and promoted the annual AHNA conference.
- Promoted special events, and coordinated advertising solicitation and placement on the website, electronic newsletter and Beginnings Magazine.
- Coordinated annual conference-related activities in conjunction with the Executive Director, Director of Operations, Education Assistant, and Committee.
- Managed AHNA marketing and event promotions and worked with the Executive Director and Director of Operations to ensure procedures were followed and that the website was updated.

DOG DAY AFTERNOON – TOPEKA, KS   July 2012 – November 2014; August 2015 – October 2018
Marketing & Events Manager | Dog Handler

- Leveraged creative tools, designed innovative content and strategies to increase on-line traffic.
- Formulated innovative marketing strategies to increase brand awareness and elevate sales.
- Developed all promotional materials for work such as brochures and posters.
- Guide and supervised my assigned team to ensure dog and employee safety.
- Handled customer service issues, questions, concerns, etc.
- Created a teamwork environment to motivate and empower employees under my supervision.

COUNTRY LEGENDS 106.9 – TOPEKA, KS   November 2014 – August 2015
New Media Director

- Department head in charge of all non-traditional revenue.
- Created content that was current, relevant and interactive while optimizing site potential.

MILITARY EXPERIENCE

ARMY NATIONAL GUARD – OLATHE, KS   December 2002 – January 2012
Sergeant | Heavy Equipment Vehicle Operator

- Execute multiple missions as lead vehicle commander and liaison to third country nationals throughout the countries of Kuwait and Iraq.
- Performed maintenance checks and services on trucks and trailers.
- Conducted over 40 combat missions throughout Iraq in support of Operation Enduring Freedom.
- Recipient of Army Commendation Medal, National Defense Service Medal, Army Service Ribbon, Overseas Service Ribbon, Armed Forces Reserve Medal, Global War on Terrorism Expeditionary Medal, Global War on Terrorism Service Medal.

VOLUNTEER EXPERIENCE

GLOBAL VOLUNTEER NETWORK – NEW ZEALAND   February 2019 – August 2019
Mount Everest Base Camp Trek

- Participated in a two week trek to the base camp of Mount Everest to raise awareness and funds for Brighter Future Children's Home in Nepal.
- Raised over $2,000 in support of Brighter Future Children's Home.