

Kendra Allen

kendra-allen.com | 12/13/2019

QUESTBOARD

A Fantasy Internal Job Board

About Me

I've heard that you can do your best work under pressure. For me, I found this to be true on this project. Finally able to get into a flow of work with a strict time limit and the pressure of getting a MVP done, I pushed myself far more to make a clean product than ever before throughout my time at Centriq. And while not something I'd want to experience all the time at work, I certainly learned I thrive under pressure.

I desire to push myself constantly. The main reason I chose this project was that I wanted to push myself on styling more than I ever had. I wanted to make a finished product that looked amazing, and with the Job Board I had a high concept that I could clearly visualize in my mind. A medieval fantasy quest board. Rows of paper tacked to a wall that an adventurer could pull down to claim it for themselves. In my mind I could clearly see this and I knew with my hobby of playing RPGs and LARPs I'd have no trouble gathering mock data for it.

Throughout the 9 days, I learned that it is crucial for myself to have a clear vision of what I want and that means quite a bit of planning before I ever touch the keyboard. As for me, I went back to my old math major friend of a paper and pencil to plan out my database and wireframe my website. Time was planned and in order to ensure that I had a good looking product - both for the goal of pushing myself and for the MVP of a good looking app - I set time towards the end for styling. A decision I'm glad I made every time I ran into styling issues. In the end, I learned that sometimes looks do matter.

But my true love is of logic. The back and mid tier are where I take pride - when I remember less struggle experienced does not make something less impressive. It's here when I can make nested structures that account for every possibility with as little code as possible that I take pride. When I can know what affects what in the beautiful spider web of connections, that is what I love to code the most. A while it can't be seen - and truthfully I believe that code that is unobtrusive is a goal for these tiers - it is my favorite part and what my ideal job would be.

Technologies Used

In this project, in addition to the standard trio of Asp.net, Bootstrap, and JQuery that we have used throughout the course, I also used - began the use as sadly I did not have the time to fully implement it - was a JS Plugin called Isotope.

Project Brief

The goal of the project was to make a data-driven, responsive web app. And it must be server-facing.

QuestBoard is a unified league where registered Adventurers can complete quests from any one of our many certified guilds across the nation. For years we have relied on the carrier pigeon system of delivering quest, but a modern generation of heros needs a modern way to get quests.

We wish to make life much easier and expand each adventurer's reach much farther with this web app. Only registered Adventurers should have access to this premium crop of quests and should be able to apply no matter their location. This should be as simple as clicking one button whilst in the middle of a heated battle - for the adventurer on the go. And with changing times calls for changing resumes - an Adventurer must be able to upload and change their own resume.

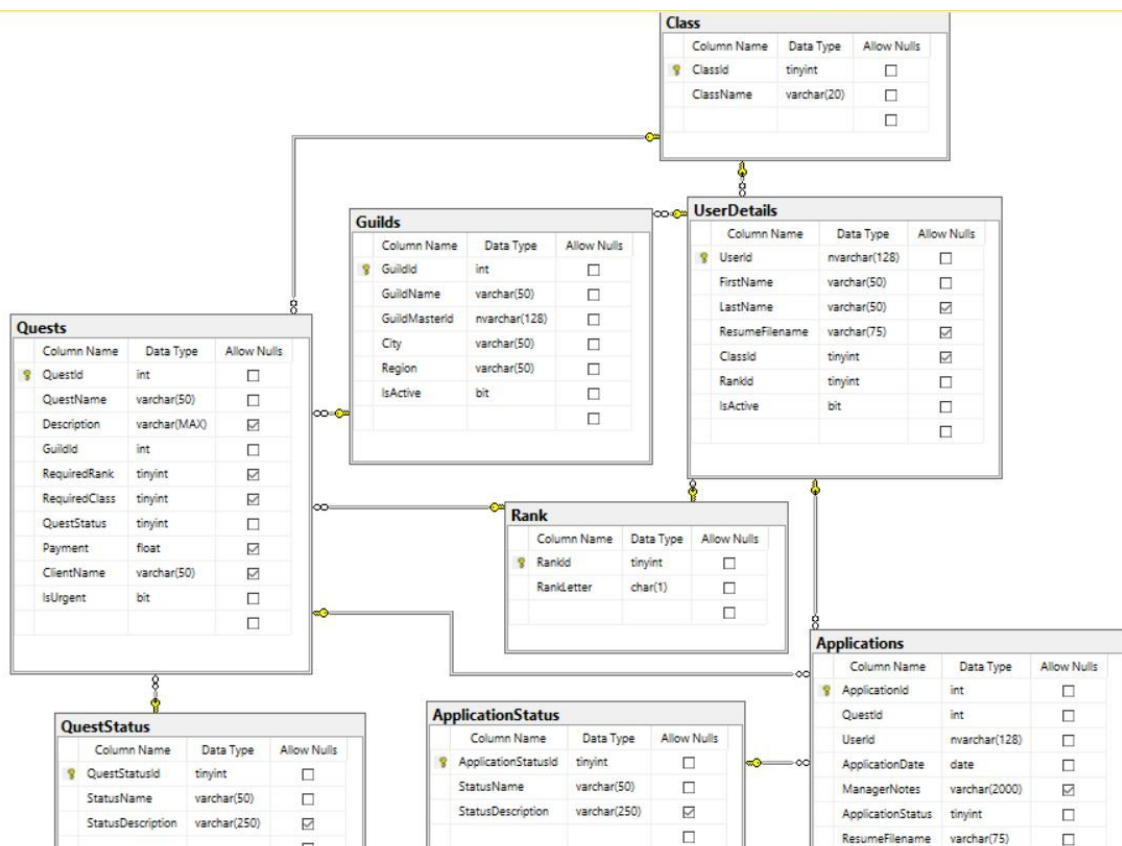
Our Guild Masters need to keep up with the times as well and be able to quickly view any application to a quest from their guild. Then, if they need, makes notes for their future selves on this application. And of course, decline or accept applications. And when trouble brews, they should be able to easily put out the call for help to the board by creating a new quest.

Obviously, our Nobels must be able to add guilds as they become certified. Add users when they register. And as they must know all that goes on: view any quest, any application, any guild, or any user they desire.

Obviously, we work with rogues. We would like to make sure that they cannot pick their way into areas of the website they do not have access to.

As stated before, this is for the modern adventurer and the modern adventurer uses their smartphone as much as a desktop, so all functionality and looks must remain on any screen size.

Database Diagram



Roles and Identity

Nobels:

- Full crud for guilds
 - Soft Delete of Deactivate/Activate guild
- Full crud for Users
 - Soft delete of Activate/Deactivate
- View and Edit ALL Quests
 - While not able to directly delete a Quest, can indirectly delete through use of cascading delete of a guild
- View all applications
 - While not able to directly delete an application, can indirectly delete (or decline) through the use of cascading delete of either a User or Guild

Guild Masters: (herforth referred to as GMs)

- Treated as an adventurer in any case where they are not a gm
- Full crud for Quests under their guilds
 - This includes Soft Delete of Cancel Quest
 - And Complete Quest
- Can view applications to their guild
- Make notes on applications to their guild
- Can approve/ deny applications to their guild
- View their guild details

Adventurers:

- View and apply to open quests that they
 - A) meet the qualifications for
 - B) have not applied to
- Can view profile details and may change their resume (NO OTHER VALUES)
- View a list of their applications, the current application status, and review the associated quests.
- Can Cancel (soft delete) an application of theirs that is under review

Anonymous (Peasants):

- Can see the login page
- Can view/use the contact form to contact HR

What could have been

Some of my plans had fallen through as the clock ticked down. While these are only bonus challenges, it's nice to know what could have been. I had hoped to fully implement Isotope for it's layout, filtering, sorting, and search. I had hoped to create a small animation when a user clicks apply of the paper being ripped down. And I had desired to add stored procedures to the site to improve performance.

Cascading Soft Deletes with Dynamic Role Change

```
[HttpPost]
[ValidateAntiForgeryToken]
public ActionResult Deactivate(int guildId)
{
    //deactivate guild
    Guild guild = db.Guilds.Where(g => g.GuildId == guildId).FirstOrDefault();
    guild.IsActive = false;

    //role grabbing in preparation for changing removing the guild master's access (through role changing)
    var userManager = new UserManager<ApplicationUser>(new UserStore<ApplicationUser>(new ApplicationDbContext()));

    var GM = db.AspNetUsers.Find(guild.GuildMasterId);

    var userRoles = userManager.GetRoles(GM.Id);

    var advenRole = db.AspNetRoles.FirstOrDefault(u => u.Name.Equals("Adventurer"));
    var gmRole = db.AspNetRoles.FirstOrDefault(u => u.Name.Equals("Guild Master"));

    //if there is no other active guild that the user is a Guild Master for
    if (advenRole != null && gmRole != null && db.Guilds.Where(g => g.GuildMasterId == GM.Id && g.IsActive == true).Count() <= 1)
    {
        //remove GM's from role of Guild Master, set GM's role to Adventurer
        userManager.AddToRole(GM.Id, Convert.ToString(advenRole.Name));
        userManager.RemoveFromRole(GM.Id, Convert.ToString(gmRole.Name));
    }

    //Cancel any quests in this guild that are not completed (or canceled)
    var quests = db.Quests.Where(q => q.GuildId == guild.GuildId && q.QuestStatus != 1 && q.QuestStatus != 3);
    foreach (Quest item in quests)
    {
        item.QuestStatus = 3; // <----setting QuestStatus to 'Canceled'
        var apps = db.Applications.Where(a => a.QuestId == item.QuestId); // <---- find all applications to the Quest that was just canceled
        foreach (Application itemB in apps)
        {
            itemB.ApplicationStatus = 2; // <---- Decline the application, as the Quest is no longer available
        }
    }

    db.SaveChanges();
    return RedirectToAction("Index", "Guilds");
}
```

Here is where I think my skills truly shine. This demonstrates one of the three main pillars of this web application. The code here is not exclusive to this one action and is spread across many different actions within the controllers.

I had created a challenge for myself to, using the one-click application requirement as inspiration, to allow users to accomplish their tasks in as few clicks as possible. Like I said before about the spiderweb of connections: if I know a Guild affects an application, then any action should reflect that fact. Nobels should not have to do clean up work or removing people from roles or canceling quests.

In addition to being the inspiration for this functionality, the one-click application also provided the need jumping off points and lessons to help make these kinds of actions work. It taught me a lot about the workings of post and of web forms I previously never knew.

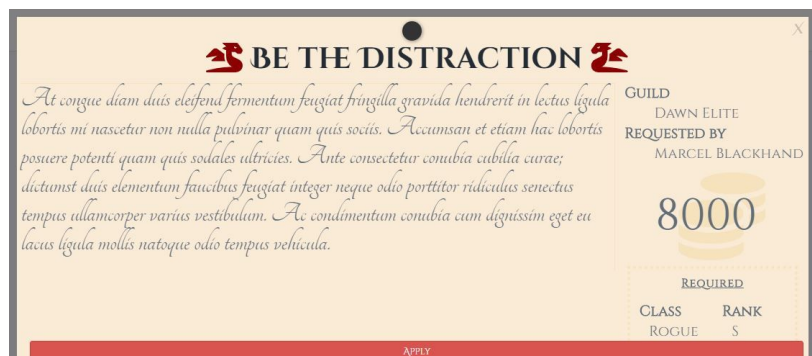
The biggest hurdle of this was having to learn how to work with ASP.NET Identity. It was one thing to call upon the role but another thing entirely to change it outside of the normal, pre-made actions. But I had decided that this was going to be my big push for myself in my strong area and I also didn't want to style yet another controller. Careful research was in order to ensure I didn't break anything and actually understood what I was doing so I could repeat it on my own. And once it worked, wrote the rest of the logic both in this action and in every other action that utilizes the pillars here from this code.

Custom Styling and JS



(Right) The main quest board of my site. The item “Be the Distraction” is showcasing the hover effect.

(Below) The Quest details modal with sticky footer and header



As strange as it is for someone who previously avoid styling on pages in the past, my QuestBoard would not be something I am proud of did it not look this good. As I said I pushed myself to style this website to the fullest. I learned a lot about styling and what you can do with it. I found myself struggling after a while not because I couldn't do it but because I had just made an amazing front page and I felt like nothing else was living up to it. Nearly all elements on my site have been custom styled to fit my vision. I sadly never got around to fully implementing Isotope, which would have created a far smoother grid and added options such as filter, sorting, and searching. Styling really showed me that if you can get into the groove and plan towards something, you can get far more done than you believe. Actually one of the best things I learned from all this styling and formatting was how to better work with the HTML helpers. Why they would sometimes break and how to fix it.

I learned more about partial views getting ever closer to my lofty hope of getting through to finally figure out and master the art of ajax. An important lesson I had to learn was that Partial Views did not support a Scripts section. But a simple planning ahead made this a meer nuisance once understood

Of course, I'm amazingly proud that each page looks good and has full functionality, with no loss of knowledge, whether viewed on mobile or on wide screen presenting in front of a room of 40 people.

Kendra Allen

FULL-STACK DEVELOPER

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QUALIFICATIONS

- Solid foundational knowledge of designing and developing full-stack web applications using .NET framework.
- Ability to empathize with and take into consideration varied and distinct view-points.
- Constructs plans to increase efficiency of workplace, considering future situations and problems.
- Analyzes facts in order to detect problems and construct solutions.

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.kendra-allen.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

CENTRIQ TRAINING – KANSAS CITY, MO
Full-Stack Web Developer Program

2019 – Present

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

PROFESSIONAL EXPERIENCE

IRS – Kansas City, Missouri 2018
Clerk

- Train employees from other sectors how to properly perform necessary tasks.
- Check for incorrect data on tax forms.
- Access daily situations and determine what priorities had to be made, where to delegate tasks, and when to request additional assistance.
- Tackle new daily problems and tasks as they each came about.
- Report to manager the number of reports gone through in the day and discuss any required assistance.

Self Employed January 2015-May 2017
Math Tutor

- Clarify the material taught by separate person by adapting material to client’s method of learning
- Evaluate client’s current understanding of both assigned base-level material and overarching concepts
- Identify key issues in client’s ability in order to assist in the overcoming of issues
- Cultivate the ability in client to obtain and understand further material in the field without further assistance
- Filter advanced knowledge and technical language down to communicate with a person on a basic level

VOLUNTEER EXPERIENCE

- Volunteered in an NPO theatrical group as an officer that coordinated group level activities for two years
 - Filtered records to give concise reports to higher authority on a monthly basis.
 - Managed a plot project plan and adapted it based on feedback.
 - Moderated emotional feedback from group and adjusted accordingly.