Custom Development for Records Management at FORTUNE 500 Company

Background

The legal department at this industrial FORTUNE 500 company requested our assistance building and deploying a web-based application for managing records. The solution needed to fit with corporate design guidelines, offer a smooth and user-friendly experience, and integrate into a larger process for managing a large and complex data set.

The department manages a large legal-matter records relating to the company's thousands of patents. For example, for a given patent owned by the company, stored information typically includes patent number, patent application number, and a wide range of supporting documents. The legal department's staff uses a third-part records-management system to enter and manage this data.

The legal department sought our assistance on a project to extend records-management functionality beyond that offered in the third-party application.

Most importantly, the legal team wanted to create a way to tie-in key product-related information together with legal matters stored in the system. For example, a given patent may relate to one or more products offered for sale by the company. New functionality was needed to enter meta-data and notes so all related information would be available for surfacing from a single area.

In this way, the new solution could eliminate the need for spreadsheet-based tracking and entering conducted separately from the main records-management tool for patent-related data. The solution would also, then, enable users to surface all relevant data through Microsoft Power BI. In this way, the legal department would enhance its ability to track products, departments, technologies with patent-related data associated with them.

Solution

We managed this project in two-week sprints using a scrum delivery approach. In this way, our client could provide specific feedback at multiple stages along the way.

Our project team consisted of a business analyst, project manager, and two developers. We began with business analysis, in defining business requirements and creating user test cases. Once the plan was in place, we moved into the development phase. The project involved three main components: the front end, the data controllers, and the data storage.

In designing the front end, a Concurrency user-experience engineer developed designs based on the department's own mockups—consistent with the client organization's broader style guidelines.

Working closely with our client, we ensured the solution provided a very easy mechanism to quickly filter and identify relevant records across thousands of patents. We built a web-based context for users to enter and save patent-related data. Users can enter any one of several criteria in a flexible search interface. The system them pulls up the related records. We built this front-end system using the Microsoft ASP.NET Model View Controller (MVC) framework.

Then, for the second key project component, we built data controllers to take the newly entered data and pass it along to a data model. This data-handling is accomplished through an API that passes along the data for storage in a SQL Server database.

That database is the third key component of the project. To bring all the relevant data together in that SQL database, we also built an import process to bring data from the third-party tool into the SQL database.

In this way, the legal team has available, in one place, all the relevant data for analysis in Power BI. A user can, for example, enter a patent number or other defined data field. Then, the solution's data access layer places a call to the API requesting all data relating to a requested legal matter. In turn, the API communicates with the database and sends the relevant information to the front-end interface.

Results and Next Steps

In a second phase of this project, we brought additional automation to the import process that brings data from the third-party tool together with data from the new application in a single SQL database. We also augmented the user interface to add more detailed parent-child selections for a given matter and introduced a date/time/user stamp each time a user adds a notation.

Throughout both the main project phase and its second phase, we worked very closely with the legal team's business representatives, including through weekly meetings coordinated by Concurrency's project manager. The workflow went smoothly, and we were pleased to deliver the solution efficiently and on time.

Organization
Industrial Corporation

Organization Type

Organization Profile