



CASE STUDY ANALYSIS: Velvet Elves

VELVET ELVES

Development of a Real Estate Management System

Technical Specifications

Application Framework: ASP.Net 4.5, MVC5, VS 2013

Programming Language: C#

Database: SQL Server 2012

Design: HTML5, CSS3, Bootstrap, JS, jQuery

Security: Microsoft Identity 2.0

Blogs: WordPress

Executive Summary

The Velvet Elves is a secure Client Focused Management System that helps the Real Estate Agents and Clients to automate their work and quickly get their deals processed.

The system provides the clients with an automated office assistant named Elf who does the bulk of jobs, paperwork and behind the scene activities to get the deals completed in no time. So, the clients can focus on their business and

personal lives and agents can focus on new clients and work to solve client issues. It also facilitates the Realtors to hire new Agents for the realty business. The system is focused to work for both the clients who are willing to either sell or buy the properties.

Problem

1. The **complete development of the application** in itself was a big challenge as this is one of its kind application and prior experience was not available.

2. The **concept of smart task list** - The application consists of a task list that is present in the Realty Business. It is automated and it matures with time. In Realty Business there is a series of tasks, that need to be performed in a specific order, some tasks have dependencies on other tasks. So, before doing a new task, all its dependent tasks need to be completed first. Also, all the tasks need to be finished in a specified time, else they will expire and be depicted to agents or Elves as red (need immediate attention). All these were difficult to manage since the no. of tasks were not fixed and they could change with different conditions as selected by the user.

3. An **inhouse mailing system** - The application consists of a mailing system, in which users can send or receive emails with attachments. The users can even reply to the emails and messages, and they are shown a full information regarding any changes or updates marked in the system. With a changing requirement and dynamic task list, it was quite difficult to manage.

4. **Use of Google Maps API for viewing the property address** - The requirement was the Google map images needs to be the screenshot of

the Street View for landing page of the Transaction, full user managed street view in the details of the transaction.

5. Another challenge was to **send daily status emails to the Admin and Brokers and Task Due emails to the agents** as the timings of these emails are different for the different type of users.

Solution (s)

1. Daily conference calls with the clients regarding the requirements, creating flowcharts and data flow diagrams to better understand the application flow, creating prototypes of modules, showing them to client and then implementing them into the application after getting client's approval were the primary means those led this project to a great success.

2. The smart task list issue: Created a master task list having all the list of task, then dynamically managing the task on the basis of condition selected by the users. This is managed by using the SQL Stored Procedures.

3. Mailing system: Using the client side code, and jQuery plugins and saving the information in the database regarding the messages, sender and receiver details in the database and obtaining the details using the AJAX calls.

4. Daily status emails, created a custom Windows Service, which obtains the daily status of the due tasks, matured task & task overdue and sends the mails to the respective users. The agents and the Elves get a timetable for full day job.

5. For the daily changing requirements and unclear requirements, two versions of the application were created Live System and Test System both running on the server. Any new functionality that was to be implemented in the Live system, first a prototype was created, then the prototype was integrated in the Test System for Velvet Elves. Our tester did a rigorous testing of the module, once passed the testing, the module was finally tested by the client, if any modification stated by the client, they were implemented and again tested. Once client said yes, the module was integrated in Live system.

Result

A full fledged solution for the Real Estate Agents and Clients to automate their work and quickly get their deals processed in US is available in the form of Velvet Elves.

The URL: <https://www.velvetelves.com>

