Mac Wilson
VBA Final Project

Executive Summary

It was 12:03 PM on October 25th, 2010 and it had happened again! I was unable to sign up for an MBA class that always gets filled in the first few minutes of registration. I was super bummed that I didn't get the class and I decided that I would change my final project for VBA and create a program that would help me to add the class. I created a program that would continue to check if the class has been dropped and if the class is dropped, then the program will then add the class. Initially I thought the project would be pretty straightforward, but it has turned out to be an adventure in figuring out how to get VBA and Javascript to work together.

Implementation Documentation

To do this project I had to learn several concepts that were new to me. These concepts included: 1) reading Javascript 2) parsing through HTML code and 3) navigating through different webpages.

The components of my project were pretty straightforward. I had to create a login userform that would allow me to input my Route Y login and password. I would then have to login to Route Y and navigate through several webpages to get to the registration page. After that I had to create a userform that I could use to input the semester, department and class that I was trying to register for. Then I had to write the code that would keep checking if the class that I wanted to add was available. When the class became available, then the class would be added.

The first part of my project required creating a login form so that the user could put in their information and begin the registration process. After entering the username and password, the program would connect with Explorer and login to Route Y.
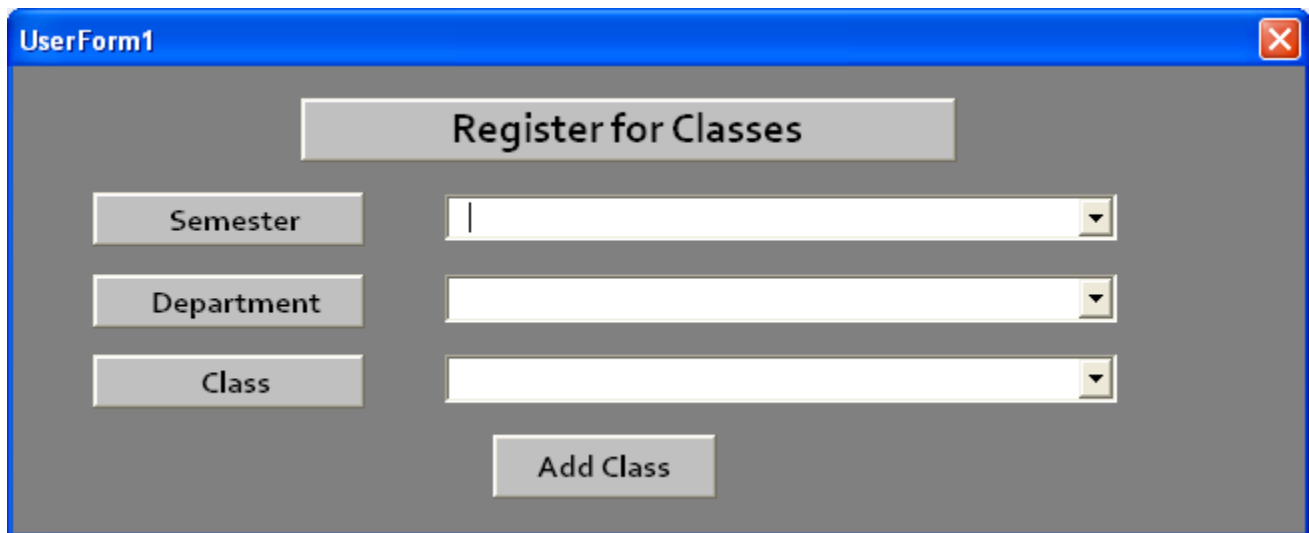
Figure 1 is a screenshot of my login userform.

Figure 1. Login Form

After the user clicked the login button, the class selection form opens up to allow the user to input their semester, department and class selection. See Figure 2.

Figure 2. Class Selection Form

The list boxes were populated from Route Y and were posted to an unseen Excel spreadsheet. After the user selected a semester, the userform would activate the semester on Route Y and then the department information would be downloaded from Route Y. The same would happen for the department and the class drop boxes. See Figure 3 below.

Figure 3. Class Selection Form with Dropdowns

Figure 4. Sub Login Code

Learning and Conceptual Difficulties

There were a lot of frustrations that I had in trying to make the code work on this project. If I had known how difficult writing this code would be before I began, I never would have attempted to do this type of project. With that being said, there were a lot of things that I learned while trying to make this code work and I am proud that I was able to do as much of this project as I did.

This VBA class has been my first attempt at coding in any language, so besides the VBA, I also had to learn how to read the Javascript code on each of the four different webpages that the program had to interact with. I also had to learn how to get the program to attach to the different webpages that the code interacted with. To get my project to work, I first hardcoded all of the necessary web interactions to add the class, and then I went back and got the drop boxes to populate and work with the code.

Although I was unable to get my program to run the way that I wanted it to do, with a few hints on what to do with the last part of the project, I think I could get it to run without too much trouble. The only thing that I am not able to do with the program is to get it to run the final button that actually adds the class. I tried several different procedures, but was unable to get it to work properly. Fortunately I have all of Christmas break to try and get this to work so that I can add the class that I want to get into.