

PRIME III: ONLINE BALLOT CREATOR

Darnell Keith Coleman Jr.

2013 Summer Research

Clemson University

Advisor: Dr. Juan Gilbert

Grad. Student Group Member: Nicholas Mcelveen

ABSTRACT

The Prime III Portal is one of Dr. Gilbert's most prized project. Prime III is a browser based voting system that gives people the privilege to vote in a state, local or national election no matter what disability they might have. This browser based voting system is ideal because it can be used on any machine with a compatible browser without the need for any other burdening equipment such as a voting machine, or ballot cards or any other accessories. Prime III is definitely usable as far as voting but in order to relinquish the need for lab attendance at an election to create a ballot; a better ballot creator system was needed. The implementation of this system is what I helped developed during the course of this DREU Program.

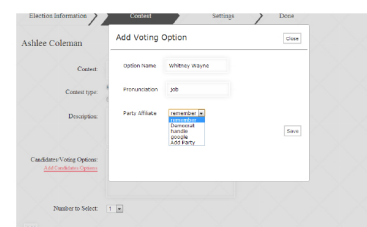
INTRODUCTION

The most important part of this research development was the overall design. How to make this system almost intuitive for the end user. The user needs to be able to log into this system and immediately know what the next steps should be, whether creating or editing an election. The design was successful

and can be viewed at <http://hcc.cs.clemson.edu/~PrimellIII/Portal/creationBallot.php>. This process is the most essential. It is not only the central starting point of establishing an election, but it controls the editing phase of ballots as well. If you have taken a look at the design, we have various buttons stating what phase of the ballot creating phase a user is engaged in. There is also a series of pop ups that inform the user with more specific information of how to use this internet software.

METHODS

Prior to doing any designing or coding to this particular project we did some deep research as far as the overall design of the database and User Interface were concerned. I recall vividly taking a look into JotForm's design. Which is how we decided to go with the modal when it comes to user entering candidates (shown in the picture below).



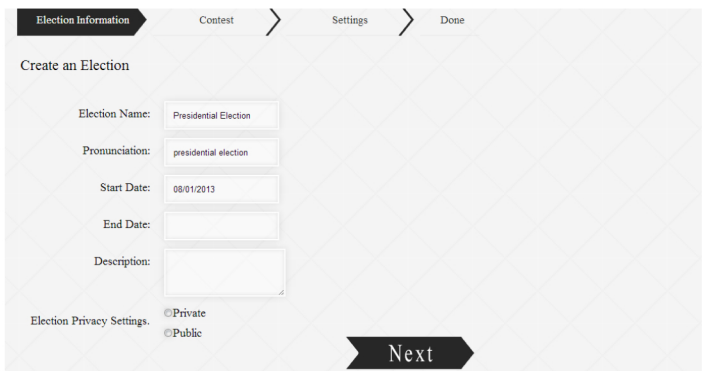
We also gathered resources previously learned on how to correctly normalize the database

so that the web platform functions most efficiently. I actually scanned through and freshend up on my skills using a couple old database books listed in the references section (Murach). After pulling some usefull techniques for Jotform, and other interactive web platforms we came up with a great design. Since the design implemented was definitly something I had never done before, there was allot of refreshers needed which I had to also read up on even more.

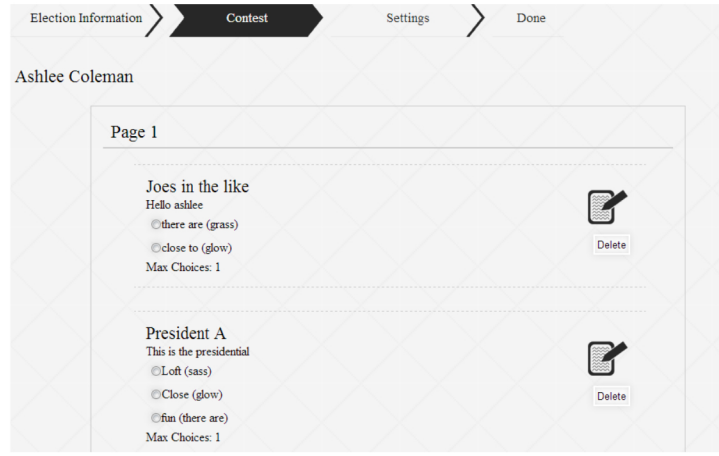
As far as the completion of all the task such as user interface, database design, and the implementation, everything all together took about a good two months to complete. There were some obstacles I definitely had to get over for instance how to get back variables that could be used after I sent information via ajax and then stick the data recovered back into another fuction. Overall everything definitely was completed for the success of a system which now enables people to create ballots without having the entire lab at the election location and without knowing code.

The proccess flow for creating an election is documented below:

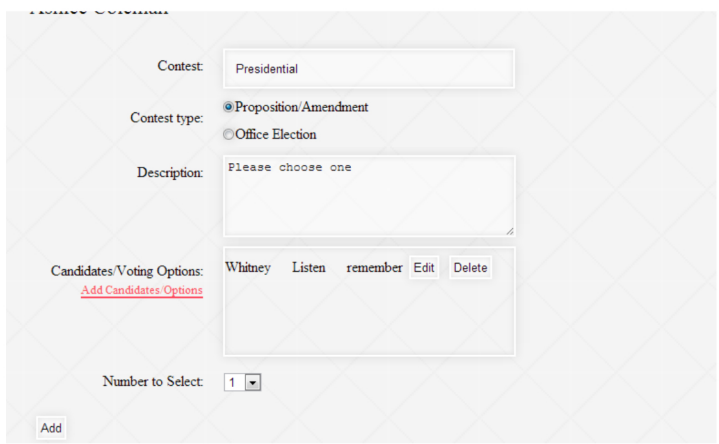
Phase 1: Creation of the election.



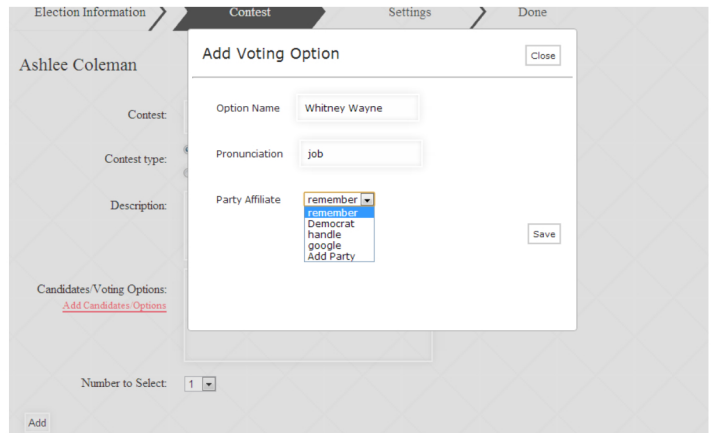
Phase 2: Creating pages and Appending Contest



Phase 3: Creation of the Contest



Phase 4: Creating Candidates and Party



RESULTS

In conclusion, the end result of this ballot creator is a tool that is not only able to create and edit elections but can enable private or public elections which also has an online feature..

REFERENCES

Murach HTML5/CSS3

Murach PHP and MySQL

JotForm.com

Php and MySQL for Web Development