

# Final Product Submission: Group 6

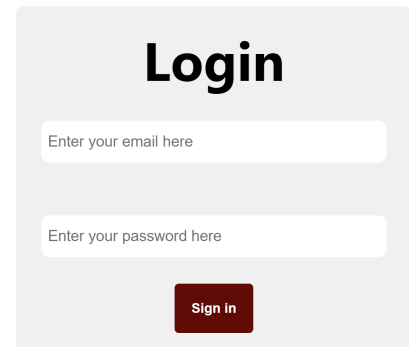
## Cold Caller

### 1 Product Description

Cold Caller is a volunteer management system for political candidates to use when polling the public. We have an admin side to manage/create volunteer accounts, track their progress and most recent activity, and view the survey responses in mass. The volunteer side accesses a database of voters that will pull a set and assign to volunteers for calling and surveying. The volunteer starts a survey and is given step-by-step instructions on what to say and immediately records the voter's response. They are prompted to submit and save that response as soon as they finish the survey. We track the volunteer's performance and give a visual reward upon completing a full set of calls. The platform is extremely user friendly and designed for users without technical prowess.

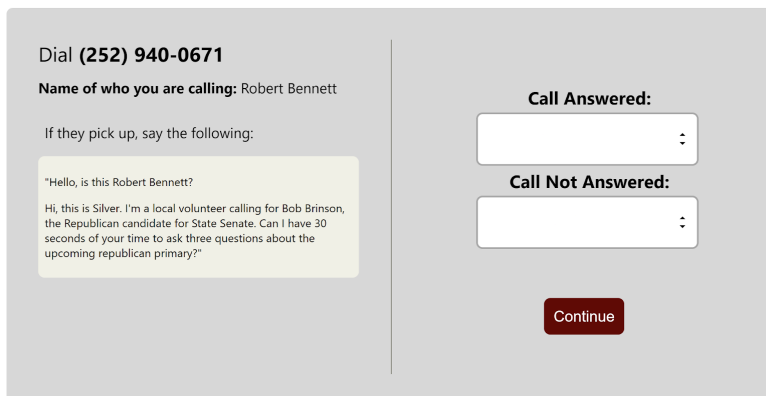
### 2 Functionalities

Figure 2.1 shows the Cold Caller website's Login page, which allows a user to either log in as a volunteer or an admin. Each of these accounts feature different options and functionalities. If a user logs in as a volunteer, they are navigated to the survey page shown in figure 2.2, where they are shown a list of up to 10 voters who they have been assigned to call. Once they have completed all of their assigned surveys, they will be presented with an option to assign a new set of voters to themselves.

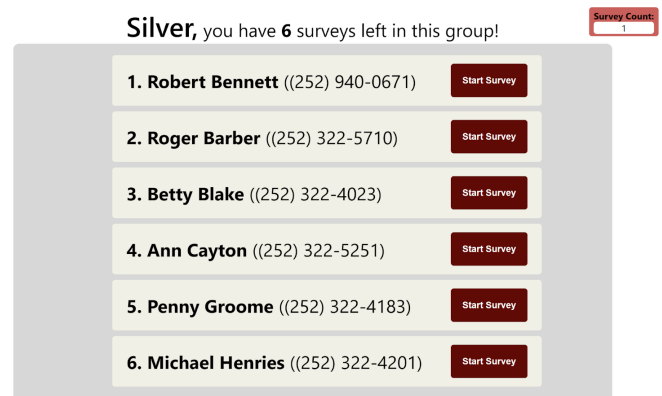


2.1 Login Page

When a volunteer clicks on the start survey in figure 2.2 they are then navigated to the page in figure 2.3, which provides them with a quick script of what to say to the voter as well as dropdown menus regarding whether or not the voter answered the call. If the call is answered, the volunteer can either choose "survey accepted" or "survey declined." If the call was not answered, they can choose between "left voicemail," "wrong phone number," or "disconnected phone number." If the voter does anything other than accept the survey, then the volunteer can finish the job here; once they submit, they will be shown a pop up dialog saying that the voter was removed from their assigned list. If the voter answers the call and accepts



2.2 Call Response Page



2.3 Voter List Page

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the survey, the volunteer can continue to the first question in the survey shown in figure 2.4. There are three questions in the survey, each in a similar format; once all three are answered, the volunteer can submit the survey, and they will be shown a dialog telling them to remember to thank the voter.

Silver, you are calling **Robert Bennett**

**1. Who do you plan to support in the upcoming Republican presidential primary, Donald Trump, Nikki Haley, Ron DeSantis, or another candidate?**

DONALD TRUMP	NIKKI HALEY
RON DESANTIS	ANOTHER CANDIDATE
UNSURE / UNDECIDED	

Next Question

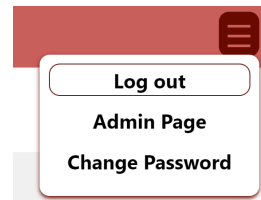
2.4 Survey Question

Another aspect of the website is the hamburger menu in the top right corner, shown above in figures 2.5 and 2.6. Figure 2.5 shows the admin view, and figure 2.6 shows the volunteer view. If either the volunteer or admin chooses to change their password, they are sent to the page shown in figure 2.7.

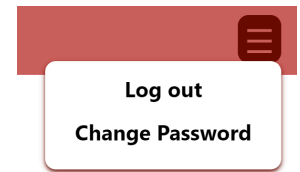
Moving on to the Administrator view of the website. Once an admin account is created and logged into, they are shown the navigation menu in figure 2.8. This allows them to easily switch between the “Data Analytics”, “Volunteer

Progress”, “Account Creation”, and “Manage Voter

Base” pages. The Data Analytics page in figure 2.9 provides bar graphs for each of the three survey questions; each bar is color coded according to the answer choice, and the numbers below signify the amount of votes each answer choice has received. The Volunteer Progress page in figure 2.10 provides the admin with a list of volunteers along with their name, voters called, and the last date they made a call. This is important for the candidate to keep track of which volunteers are actively making calls. The next page, Account Creation, in figure 2.11, is necessary for creating volunteer accounts, so that they are able to receive a set of voters and submit the surveys. Lastly, the Manage Voter Base page in figure 2.12 provides an option to download a list of flagged voters. The voters have been flagged for declining the survey, not picking up the call, having a wrong phone number, or having a disconnected phone number.



2.5 Admin Dropdown



2.6 Volunteer Dropdown

**Change Password**

Email

Current Password

New Password

Confirm New Password

Change Password

2.7 Change Password

**Cold Caller**

**Admin View**

- Data Analytics
- Volunteer Progress
- Account Creation
- Manage Voter Base

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Logout

2.8 Admin Nav

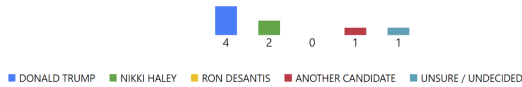
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Sort By Location:

Montgomery   Fairfax   Beaufort   Reset

Total Surveys Submitted:

1. Who do you plan to support in the upcoming Republican presidential primary, Donald Trump, Nikki Haley, Ron DeSantis, or another candidate?



## 2.9 Data Analytics Page

First Name

Last Name

Email

Password

Account Type

Create Account

## 2.11 Account Creation Page

Search Volunteer...

## Volunteer Progress

Volunteer Name ↓	Voters Called ↓	Last Call Date ↓
Silver Harris	1	2024-04-25 20:40:49
Violet Harris	0	-
Aastha Mistry	0	-
Tanya Dinesh	0	-

Delete Account

Reset Password

## 2.10 Volunteer Progress Page

### Download Flgged Voter List

Voters have been flagged for of the following reasons:

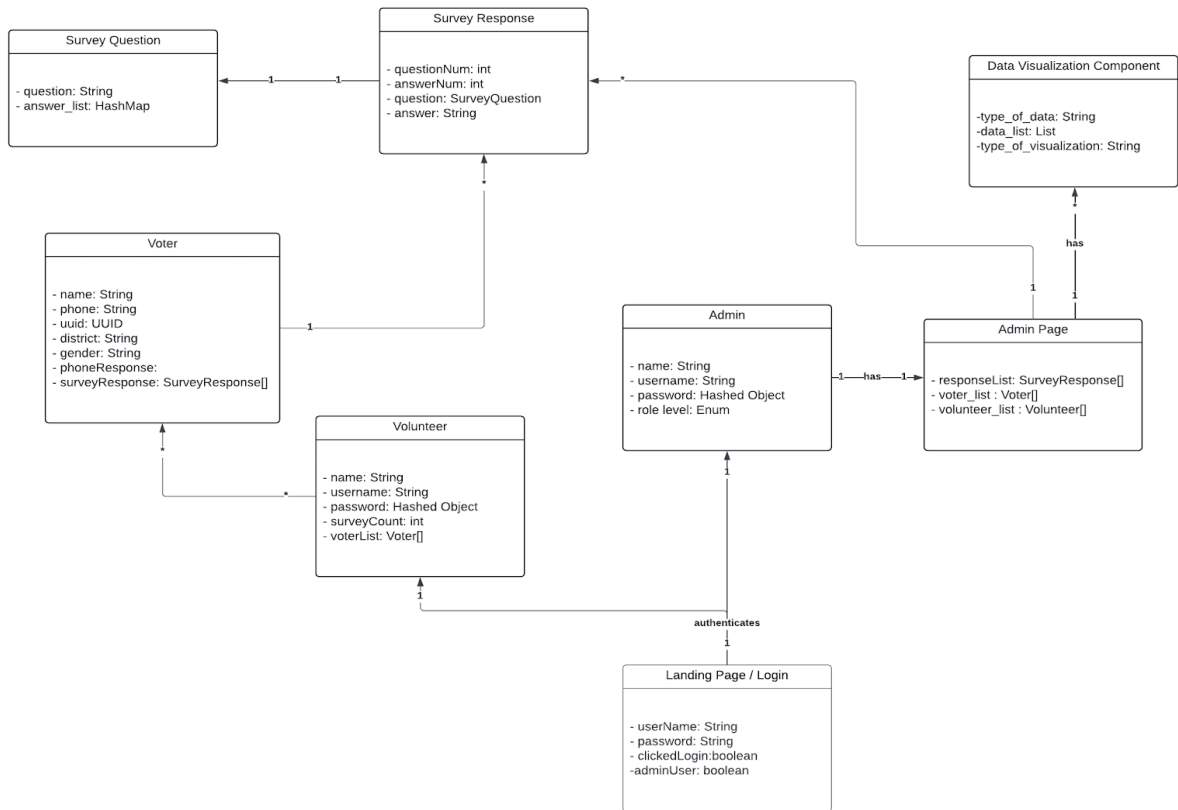
- Declined to take the survey.
- Did not pick up after 2 attempts.
- Wrong phone number.
- Disconnected phone number.

Download CSV

## 2.12 Manage Voter Base Page

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## 3 Design

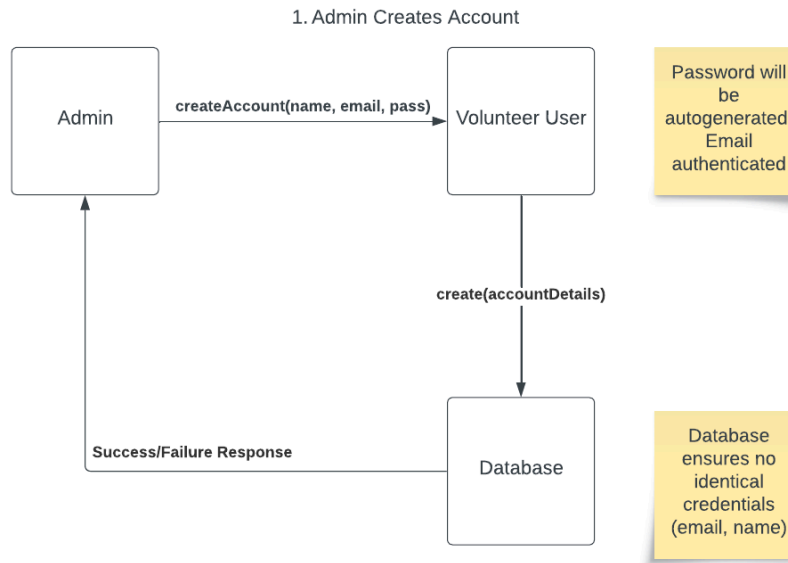


### 3.1 Domain Model

Figure 3.1 is our completed domain model, showing all of the classes necessary to build our website: Voter, Volunteer, Admin, and Survey Question and Response. Those are all interlinked in a way that the Admin manages all the Volunteers, the Volunteers have a list of Voters, and the Voters have survey responses and questions linked to them for data collection. The other pages utilize these classes to display the correct information. The volunteer page displays the volunteer's list of voters. The admin page has multiple routes, one with all the survey responses categorized by question, account creation, and volunteer management which displays all the volunteers in a list.

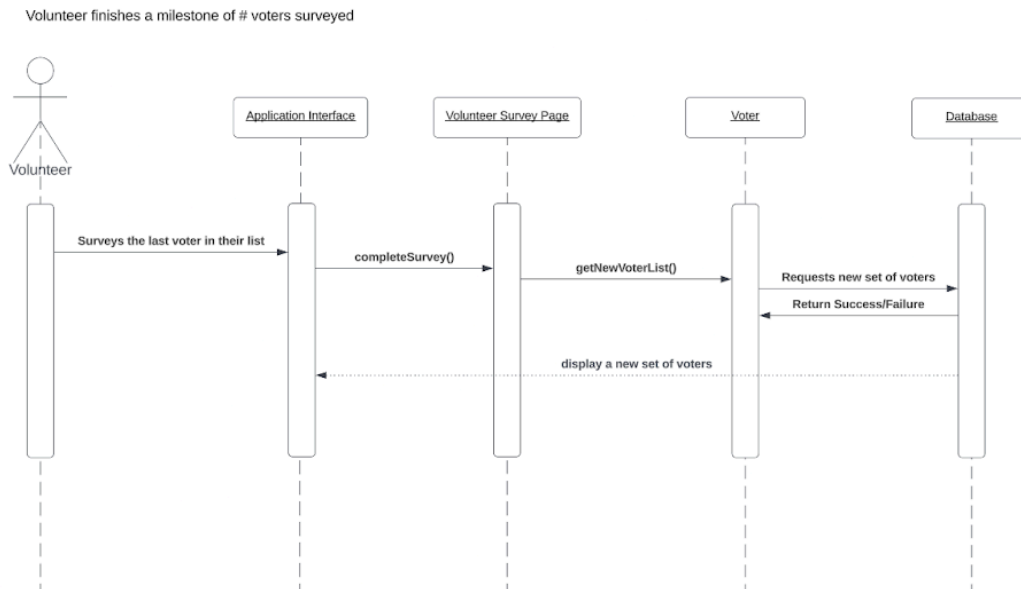
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## Interaction Diagrams



**3.2 Create Account Interaction Diagram**

Figure 3.2 shows the process in which an admin creates an account.



**3.3 Completes Survey Milestone**

Figure 3.3 outlines the process that happens when a volunteer depletes their list of voters. They are given a new set of voters to work on, as well as a visual alert congratulating the volunteer.

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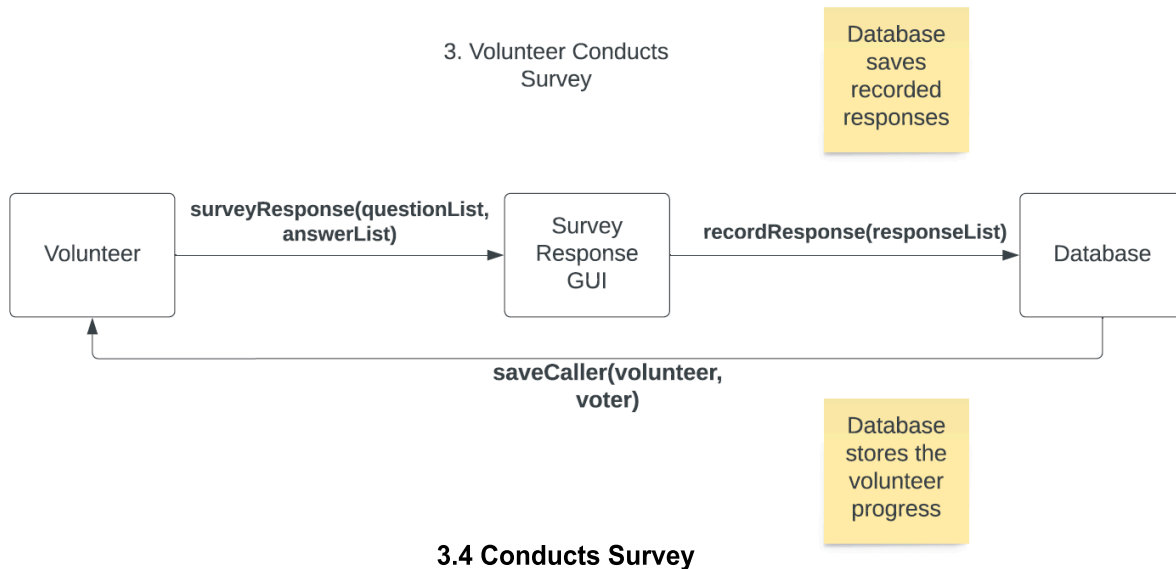
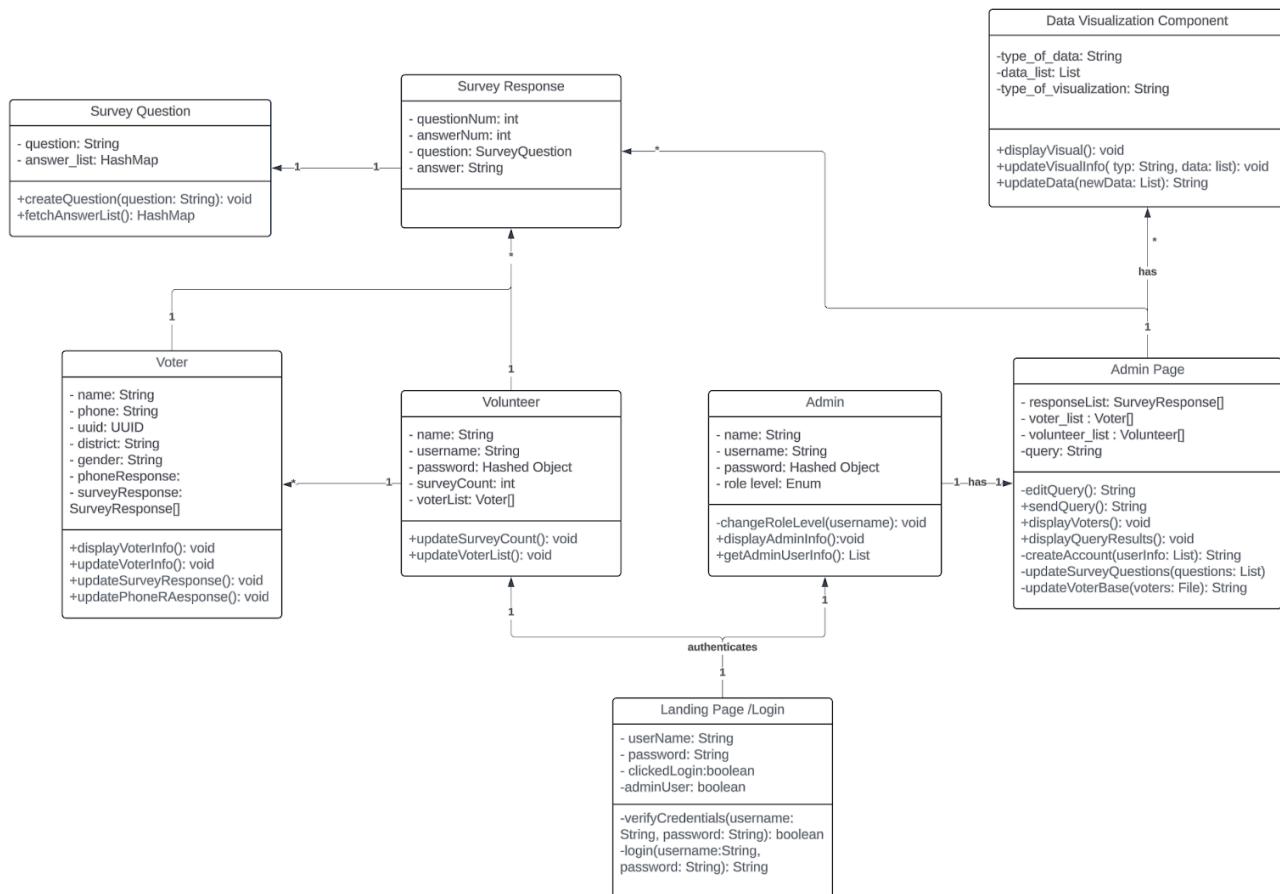


Figure 4.4 details the survey response being recorded after the volunteer submits the voter’s answers on the application. The survey response is added to the voter’s arguments in the database to be referenced when an admin requests the data.



## 3.5 Design Class Diagram

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The significant difference between our product and other cold callers is the built in survey and data display. Typical calling software just takes numbers and assigns them to users to call, we embed the survey and allow users to conduct the surveys on the platform and directly store the data into the database. The admins can then view this data through the same platform. Admins are also able to track user progress through their survey conducted counter and date of last survey. We also allow the users to request more numbers directly from the database and do not require an admin to assign calls.

### **4 Retrospection**

#### **4.1 Initial Challenges and Technical Hurdles**

We had a slow start on the project which hindered our overall performance. We had issues with setting up the container using docker. Everytime we changed the requirements or package files the docker images had to be deleted and remade as the cached version became outdated. A big issue that we encountered early on was in the storage of the survey questions as the format of question 2 was to pull from a set of 3 questions. We had to figure out a novel way of storing all the questions and answers without losing track of what responses were to which question. Due to the complex storage we also had some issues pulling it from the database and displaying the questions properly for the user.

#### **4.2 Communication and Collaboration**

We learned the importance of good communication as we always sought out help when encountering a problem that someone else was more experienced in. Everyone was very responsive and eager to help in these situations. We also had at least one meeting a week to talk about progress and blockers.

We learned the importance of breaking down user stories into the smallest pieces imaginable. Our first sprint had huge tasks that involved many smaller pieces to be done before or after which lead to many stagnant tasks in our Jira. Going forward we broke them down into small segments and were able to appropriately assign the tasks to the right person based on their skill sets.

Another important lesson was having check-ins with the client. This kept us on the same page with them and made sure our progress was in the right direction. From these meetings we also were able to ask if certain features would be beneficial to the customer or ultimately go unused. In these meetings we also found out the importance of writing out notes, this way we could reference those topics later and all be on the same page.

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### **4.3 Reflections on Project Timing**

Overall I think the only actions that we should have taken but did not was just getting a start on the project earlier. We did not actually start writing code until after Spring Break which left us with less time than desired to create a functional product.

### **4.4 Proposed Improvements and Customer Satisfaction**

I think the only way to make our product better would be further email integration into the user accounts. We did not have the time to include email authentication to increase security. Other than that we are very satisfied with the product we provided our customer with.