# **Requirement Document**

Team Name: 5 bit

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Project Name: Get-a-Room

Project description: A web app that facilitates voting for an election.

Communication Channel: Facebook Messenger

Tech Presentation Topic: Express (JS)

#### Features:

1. Authentication with email/link

- 2. Authentication with Google
- 3. View list of positions and referendums
- 4. View candidates for each position
- 5. Vote for a candidate
- 6. Confirmation Email for vote
- 7. Apply to be a candidate
- 8. Admin Portal
- 9. Real-time voting dashboard
- 10. Side navigation bar for candidates

Technologies Used:

Front-end: React

Database: Firebase + Express, Node

#### App Description:

The ASUCR Elections Voting Application is a simple, yet powerful web application designed to make elections information and voting secure and easily accessible for all UCR students. Our landing page makes all election information clearly visible, from the election timeline to the forms and applications. Applying is now easier than ever on our site as we have candidates fill out and submit applications to run, all in one place. Online voting is now as easy as clicking a few buttons, taking you to the voting form. Security is a priority as we utilize Google's Firebase cloud functions to ensure only UCR students with their appropriate UCR credentials are able to sign up to vote. Through a similar process, we also ensure that all students are only able to vote once. Our application also provides features for admins to approve or reject both candidates and referendums all on our admin portal. This is your all in one, online voting web application!

#### User Stories

- 1. Authentication with email/link
  - a. As an elections manager, I'd like to be able to prevent non-school associated people from casting a vote, and also only allow one vote per student. I'd like to use ucr emails as an authentication step and make it so that each ucr email only gets to make one vote.

#### 2. Google Authentication

- a. As a voter, I'd like to be able to sign in using my UCR school email. The school email is linked to a ucr gmail account so a google sign in authentication would be useful.
- 3. View list of positions and referendums
  - a. As a voter, I'd like to see the list of positions which are being up for vote. I'd like to see what department the position is for and also a description of the job. I'd also like to see the list of referendums as well as what they will do.
- 4. View candidates for each position
  - a. As a voter, I'd like to see the candidates for each position being voted for. I'd like to see their name, major, year, picture.
- 5. Vote for a candidate

a. As a voter, I'd like to be able to vote for the candidates of my choice. I'd like to visually see when I make a selection. I'd like to see how many people I can vote for as well as how many votes I have left. I should also see a visual indication showing that I cannot vote for any more people (such as greying out their profiles). I should be able to change my vote during the voting process.

#### 6. Confirmation Email for vote

a. As a voter, I'd like to receive an email which contains my votes. I should see the
candidates I voted for, their information, the position, as well as the date for when
I voted. I should also see the referendums and their description.

#### 7. Notification emails for election results

a. As a voter, I'd like to receive an email when voting concludes with the winners of the elections. I'd like to see their information, position, and if I voted for them. I should also see the referendums which passed and their description.

#### 8. Submit Election Violations

a. As a voter, I'd like to report any election violations I see. If I see poor behavior or have any complaints or see any rule breaking, I should be able to have that submitted and reviewed by official channels. I should also get a response that my report was read, and also a notification of any decision on it.

#### 9. Real-time voting dashboard

a. As a voter, I'd like to see the current standings of each candidate live. I'd like to see either the number of votes or their percentage of votes and visually see a bar that represents that. I should be able to see the candidates side by side and also filter by position.

#### 10. Sidebar filter candidate/position filtering

a. As a voter, I'd like to be able to search for candidates either by position running for, etc. I should visually see results for the search.

#### 11. Online Candidate Application Form

 As a potential candidate, I would like to apply to be a candidate and be notified of my approval/rejection.

#### 12. Admin Portal

a. As an admin, I would like to see all candidate applications and requests and be able to accept or reject them. I would also like to see all referendums and be able to create, edit, or delete them.

# **Meeting Notes**

#### Oct 2, Wed

- Get-a-room: room reservation application
- Streaming service

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#### Oct 9, Wed

- Finish requirement document
  - o 12 user stories
  - Application description
- Update scrum sheet
  - Create product backlog
  - Update task board and create tasks

#### Oct 16, Wed

New application ideas:

- Voting app for asucr
  - Register with ucr email only
  - Scan driver's license
- Make a meal app
  - o Give ingredients and it tells you what meal to make
- Oncampus food delivery
  - Oncampus food places to oncampus rooms
- Influencer platform

Update requirement document and scrum sheet as needed

#### Oct 23, Wed

- Sprint 1 plan
  - Navbar
  - UCR email authentication
  - Create new account

#### Oct 30, Wed

- Sprint 1 demo
  - Fixed minor bugs and added last minute UI tweaks before demo.
- Sprint 2 plan
  - o Discuss structure of how candidates and positions should be displayed
  - Debated between one page that showed position information and corresponding candidate information and the alternative of two separate pages, one for candidates and one for positions.

#### Nov 6, Wed

- Sprint 2
  - Evaluated prototype UI and made adjustments. Ended up switching from

#### Nov 13, Wed

• CANCELLED!

#### Nov 20, Wed

- Sprint 2 demo
- Sprint 3 plan
  - Reformat database
  - o Create admin portal
  - Have ability to apply to be a candidate

#### Nov 27, Wed

- Sprint 3
- Prepare for in class, live demo

#### Dec 4, Wed

- Sprint 3 demo
- Touch up application logo and candidates page
- Finalize scrum sheet, requirement document, and design document

# **Design Spec**

#### **Architecture:**

Backend: Express JS, Node JS

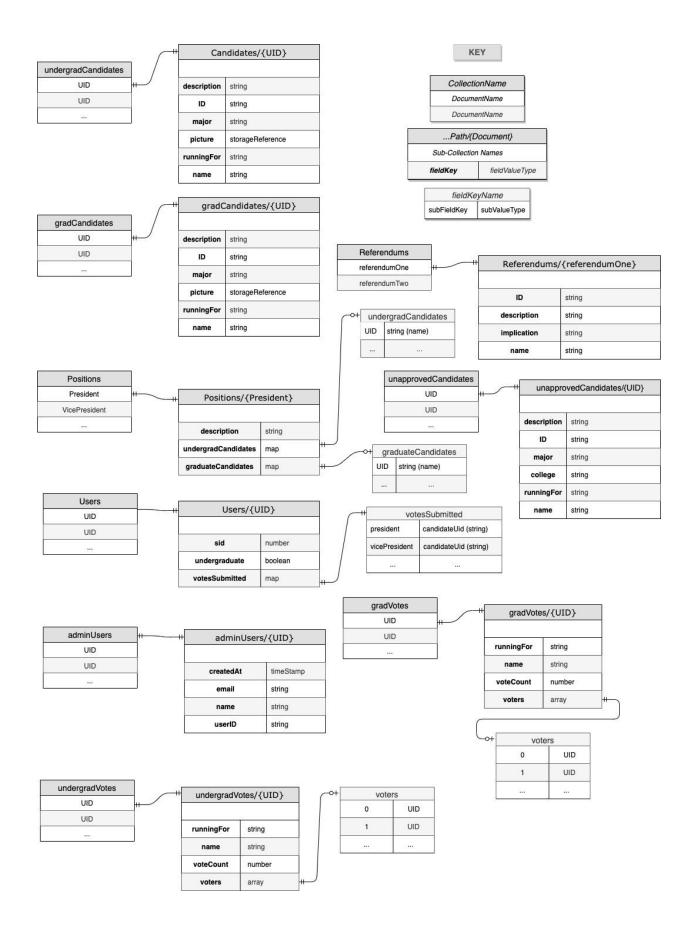
• Database: Firebase

• Frontend: React JS

• The database will be pre-populated with students running for student body elections. Users will log onto the platform using their UCR email and get authenticated. Once authenticated they can view a list of candidates and the positions they are running for. There will also be a live dashboard displaying which candidates are in the lead for different positions. After picking the appropriate candidates, students will submit their selections for student body government and the leaderboard will update in real time. Naturally, students will only be able to vote once and will be barred from logging in again after they have already voted.

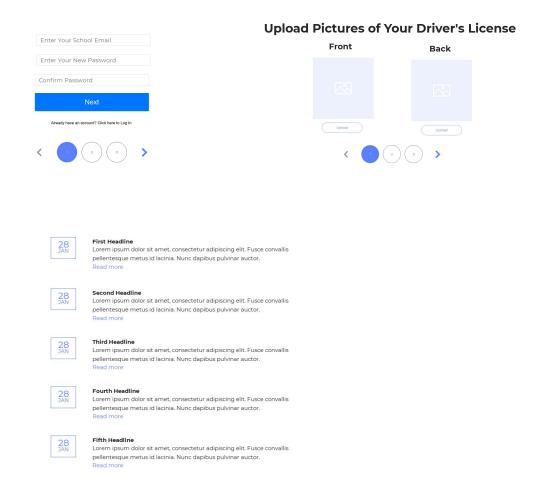
## Data model:

- The database will contain two collections. One for candidates and one for users.
- The candidates collection will keep track of the number of votes each candidate has.
- The users database will allow students to log in with their UCR email and HAVE to verify their identity by checking their UCR email and verifying.
- User database schema:



### **Interfaces**

## Sprint 1:



- The UI will have two displays
- One is the dashboard which shows which candidates are in the lead for each position
- The other display allows students to vote for their student body candidates

# Sprint 2:



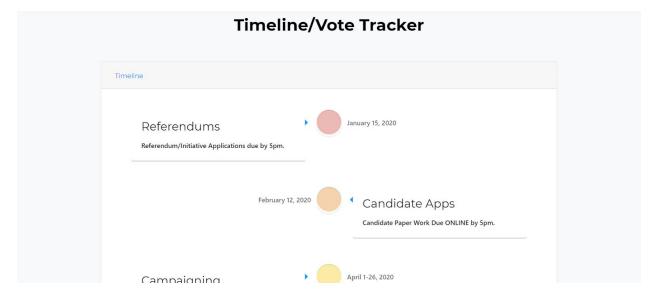
Home Positions & Candidates Referendums Forms Vote Admin

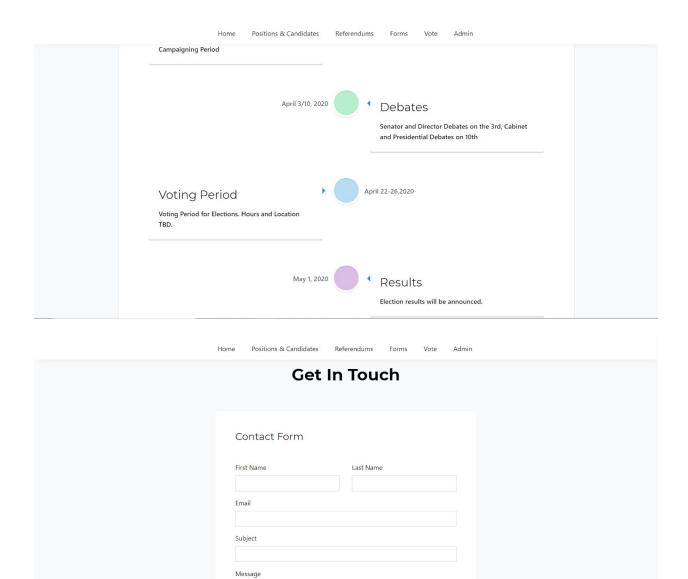
# Voting is Open!

elit. Laboriosam assumenda ea quo cupiditate facere deleniti fuga officia.









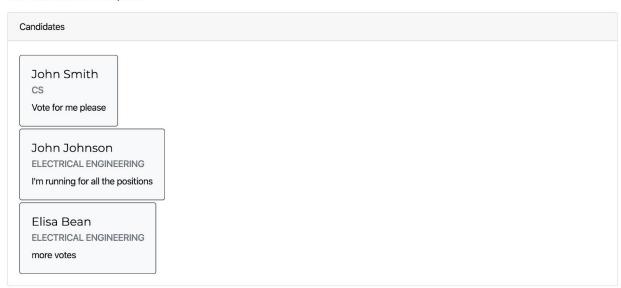
• Landing page design and formatting:

Write your notes or questions here...

- o Vote button, title, image
- Election timeline
- Contact Us form

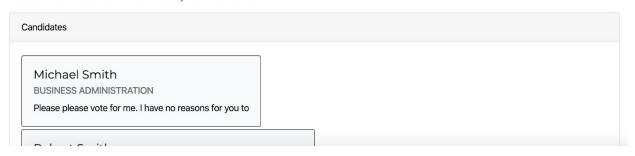
## President

The President has all of the power



## VicePresident

The Vice President does all of the work the president does not want to



#### Referendums

Description
This is a description of referendum five.
Implications
This is an implication of referendum five.

Description

This is a description of referendum six.

Implications

This is an implication of referendum six.

Description

This is a description of referendum four.

Implications

This is an implication of referendum four.

**Description**This is a description of referendum three.

Implications

This is an implication for referendum three.

Description

This is a description of referendum One

Implications

These are the implications of referendum One

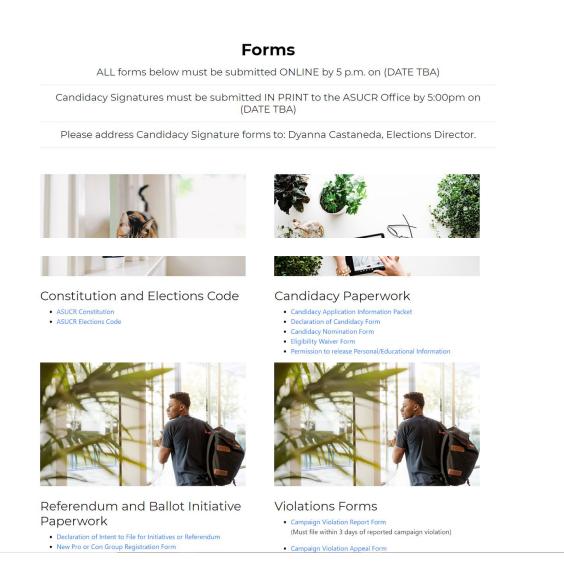
Description

This is a description of referendum two.

Implications

These are the implications of referendum Two

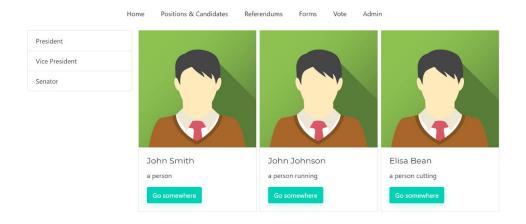
- Candidates page pulls from database to retrieve candidate information and dynamically populates each card.
- Referendums page also pulls from database to populate referendum cards.

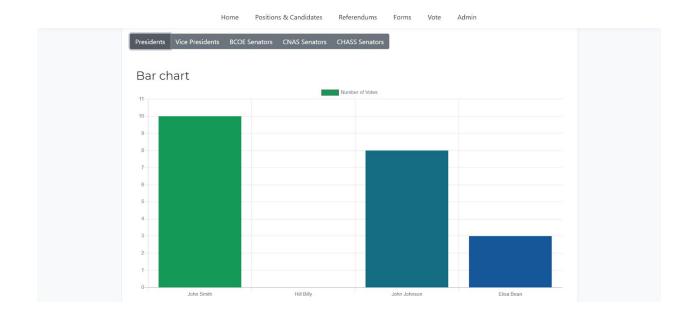


• Links to election forms are all grouped under their appropriate categories

# **Sprint 3:**

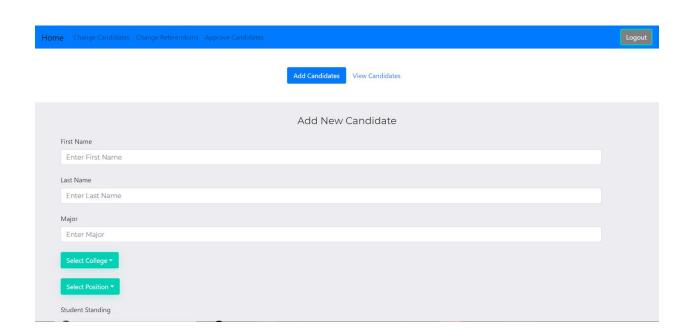


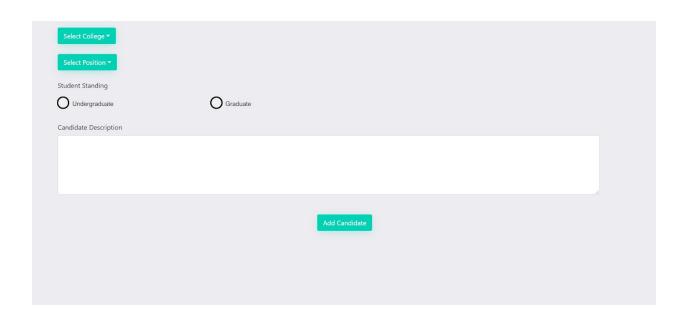




# Admin Login





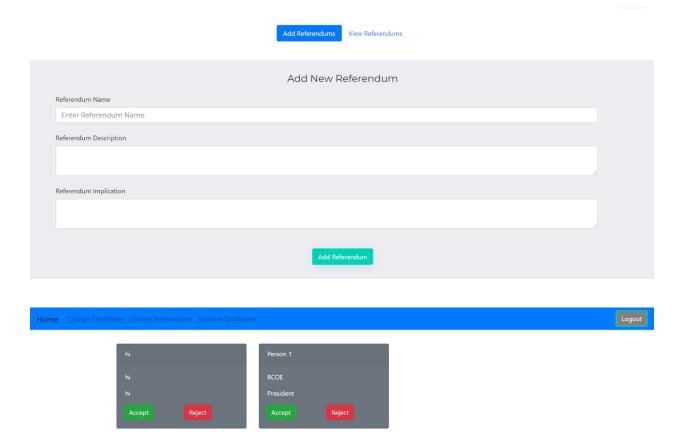


Home Change Candidates Change Referendums Approve Candidates

Logout

## Add Candidates View Candidates

Name	Major	Candidate ID	Running For	Student Standing	
John Smith	CS	uid1	President		Delete
het lol	cs	uid10	Secretary		Delete
Darun Seethammagari	CS	uid11	BCOE Senator		Delete
John Johnson	CE	uid2	President		Delete
Michael Smith	Business	uid3	VicePresident		Delete
Robert Smith	Psychology	uid4	VicePresident		Delete
Senator Dude 1	Civil Engineering	uid5	Senator		Delete
Deer Doe	Materials Science	uid6	Senator		Delete
Frito Layz	Gender Studies	uid7	Senator		Delete



- Candidates page had UI overhauled to include a sidebar and be merged with the previous separate positions page.
- Live bar graph for voting count was added to reflect candidate popularity.
- Admin portal was added so that candidates could be approved by an admin. Additionally only an admin can add or remove referendums from the database.