Cityzen – Project Plan

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Project Executive Summary:

Overview:

Cityzen has developed a new way for city governments (such as Raleigh) to incorporate the opinions of constituents who are not typically the most vocal (most importantly, young voters). The Cityzen web application allows local governments to directly release polls to constituents concerning current issues and projects. These polls are distributed locally and users are then able to give input with ease from their computer, without attending events such as town halls or committee meetings. Cityzen's ultimate impact is to create a more cohesive community in which everyone's opinions can be heard and valued, ideally resulting in the creation of better, more useful projects which benefit a larger subset of constituents.

Cityzen Mobile serves to connect users to Cityzen's web service via location-driven push notifications. The mobile app will serve as an interface between the mobile user and the web service, which contains the majority of the functionality. The application's value lies in its ability to actively engage users within a more personalized polling system (receipt of polls and updates are based on the user's GPS location [or preset zip code] and user's interest preferences). This takes the burden of continued engagement off the user by placing the active responsibility of user-service interaction on the service itself.

User Experience:

1. Download Cityzen Mobile
2. Greeted by a splash screen containing the Cityzen logo
3. When the main page loads, log in or sign up on the app
    - User info is saved by the device until explicitly logged out
4. On subsequent visits to the mobile app, the user will be able to do any of the following:
    - open their profile
    - view notifications which link to polls on the webpage
    - view the "about" page on the web
5. When the user is not actively using the application, Cityzen Mobile will run in the background and trigger OS-level notifications that will take users to the application where they will select the poll they wish to vote on.

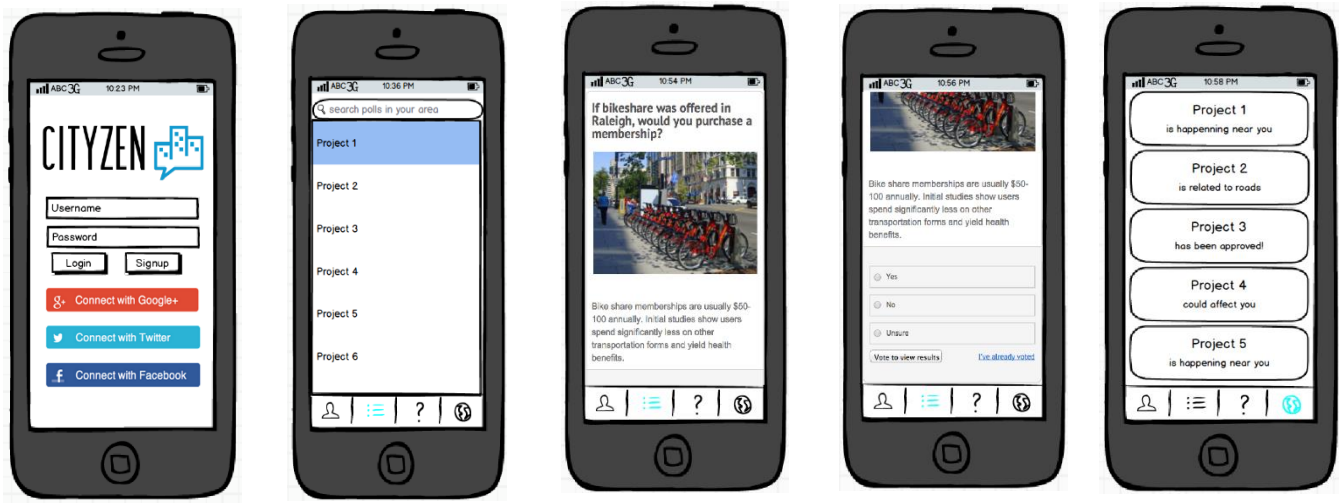
Secondary Goals:

1. Instead of transporting users to the browser to vote, users will be able to directly respond to polls from within the app
2. Users will be able to update their (e.g. parks and rec, sanitation, children, etc.) through the web page, so they only receive polls about matters that they are interested in.

Technical Considerations:

- Development Platform: Cordova/PhoneGap - Since the primary goal of Cityzen Mobile is to reach as many constituents as possible, cross-platform functionality and accessibility will be valued more highly than the native app experience.
- UI Framework: Ionic, a library of customizable UI pages that easily integrated with PhoneGap, will be used to make for a cleaner, more straightforward user experience
- External APIs: This app will integrate with Google, Facebook, and Twitter for the purpose of logins and user storage.
- External costs: All current databases are attached to and/or upheld by Cityzen, and should therefore incur no external costs

GUI draft:



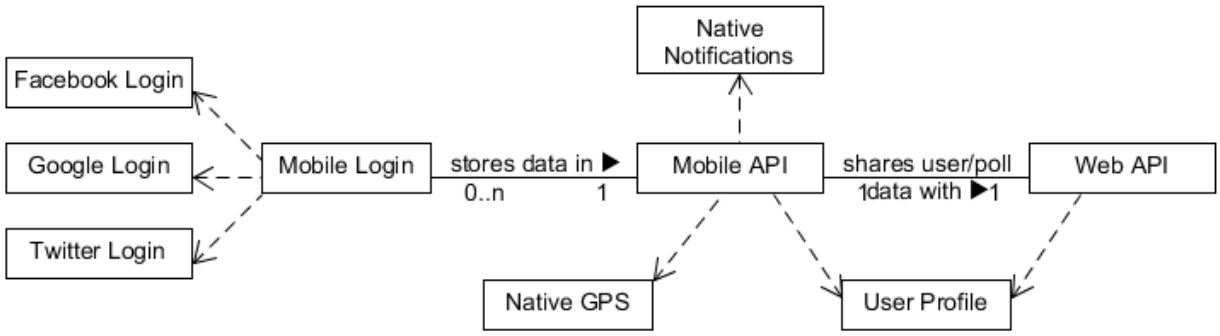
GOALS:		
native push notifications	• mobile app sends notification to mobile OS • user can access new poll through notification	P1
login functionality	• facebook login • google login • twitter login • Cityzen account login	P1
user account data	• communication of user data between mobile app and web app • send cookies with user data on requests to web server • preservation of user data in the mobile app until user explicitly logs out	P1
vote in-app	• user can respond to a poll without accessing the website	P1
GPS-based profile	• Cityzen sends user polls based on mobile GPS data	P1
Default location profile	• Cityzen sends user polls based on the default city choice	P1
User preferences profile	• Cityzen sends user polls based on the profile preferences	P2
View recent polls	• app maintains list of recent polls • user can view voting history	P2
NON-GOALS:		
Integrate linked poll podcast and video information		N/A
View past & inactive polls		N/A

Design:

Priority Goals:

- As of current status, Cityzen is a tool for only Raleigh. However the mobile app will be designed to be easily applied to and implemented by other cities
- The will be built for forward compatibility of the web site; no core functionality should break or change when the web app is update

Design:



Dependencies:

- Web application resources and API (including databases) – to support interactions between the mobile app and the web app
- Cordova – to implement the mobile app across multiple platforms
- Ionic – for UI and front-end design
- Firebase – for information sharing (regarding user information) between the web server and mobile app
- External social media login
  - Facebook
  - Google
  - Twitter

Concerns:

- Login component - interaction and synchronization of user data between the mobile application and the web application
  - Potential security risks
  - Difficulty with preservation of data as functionality is transferred between the mobile app and the web server
- In-app voting component:
  - Ability to access one poll at a time from within the mobile app:
  - Update webpage to be able to display one poll at a time, so that the user can be directed to a single poll presented to them by a mobile notification
- Location-based polls component:
  - How long should a user be within a geo-fence before receiving a poll?
- Security and accurate representation of user activity:
  - Ensure user must login to vote – not implemented by web app
  - Ensure user can only vote for each poll once – not implemented by web app
  - Prevent scripts or computer programs from voting as fake users

Team Organization:

Roles:

- Connor Gordon - Project Manager
- Francesco Agosti - Technical Lead
- Hailey Johnson - Business Analyst
- Everyone - Quality Assurance

Component Ownership:

Component	**Owner**
Push notifications	Francesco
Login (via FB, Twitter, G+)	Connor
Social Media Integration	Connor
Web Application Integration	Hailey
Location-Based Tagging (and notification preferences)	Hailey
User Interface	Francesco

Sprint Planning and Deliverables:

Sprint 1	**Pretotype**	**September 17 (completed)**
1. User Interface 2. Vote in-app		
Sprint 2	**Prototype Demo**	**September 29**
1. demo push notifications - isolated from web server 2. update and maintain profile preferences 3. select “default city” or “use GPS” 4. view recent polls		
Sprint 3	**Baseline Prototype**	**October 20**
1. Login APIs 2. user cookies on requests to web server 3. push native notifications		
Sprint 4	**Alpha**	**November 5**
1. notifications by category 2. GPS notifications		
Sprint 5	**Beta**	**November 19**
1. Fix bugs - TBD		
Sprint 6	**Production**	**December 11**
1. Fix bugs - TBD		