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Cityzen - Project Plan

Starting the week of September 21, 2014, we have begun to develop a mobile application for the team over at Cityzen, based in HQ Raleigh. Project Development will continue until the end of December.

What Cityzen is All About

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 existing 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.

The Core Functionality of Our Application

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.

A Brief Look at the Future User's Experience within the Application:

1. The user will download Cityzen Mobile from Google Play
2. Upon opening the application, the user will be greeted by a splash screen displaying the Cityzen logo
3. When the main page loads, the user will be prompted to log in or register in the application. The user can use his Facebook, Google, or Twitter account to log in as well. The user's info will be saved to the device until the user explicitly logs out.
4. On subsequent visits to the mobile app, the user will be able to do any of the following:
    a) Open their profile
    b) View notifications which link to polls on the webpage
    c) Update their notification preferences
    d) Set their default city (to receive polling data) or allow his/her phone's GPS feature to auto select it.
    e) 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.

Future Implementations and Features (if time allows):

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 interests (e.g. parks and rec, sanitation, children, etc.) through the web page, so they only receive polls about matters that they are interested in.

Application Dependencies:

- This application will be developed using 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.
- Additionally, we will be using the UI Framework, *Ionic*. Ionic provides a library of customizable UI pages that easily integrated with PhoneGap. This will be used to make for a cleaner, more straightforward user experience
- Firebase will be used to manage our backend notification system and user authorization processes
- 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.

How Our Goals will Prioritized and Managed:

GOALS:	**Subgoals:**	**Phase**
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 Goals

Cityzen is currently only built to release poll information for the city of Raleigh, but the team at Cityzen hopes to expand to cities all across the U.S. The app needs to be built in a way so that none of its core functionality needs to be changed when a city is added. This extensibility can be created via a robust push notification system that no differently tags locations for different cities. The clients will be responsible for this notification system come December. The app will also be built such that updates to the web app do not break the mobile application functionality. The Cityzen has rightly made it clear that they do not want to make changes to both the web app and mobile app when they create updates. By taking the user directly to the web application from within our mobile application, changes made to the web interface will be reflected in our mobile application.

Concerns

The following are current questions/concerns that we have about the project

- Login - interaction and synchronization of user data between the mobile application and the web application
    - security
    - preservation of data
- Ability to access one poll at a time from within the mobile app:
    - Webpage currently displays all relevant apps on a single page (will need to be updated).
- Location-based polls
    - how long should a user be within a geo-fence before receiving a poll?
- Can we limit user activity so that each user can only vote once
    - current web application does not currently implement this feature

Project Roles:

Connor Gordon - Project Manager

Francesco Agosti - Technical Lead
Hailey Johnson - Business Analyst
Everyone - Quality Assurance

Division of Labor:

Component	**Owner**
Push notifications and settings	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

The following sprints will each occur in two week increments. The "pretotype" sprint was completed on September 17, 2014.

Sprint #1 - Pretotype - by September 17
1. User Interface
2. Vote in-app

Sprint #2 - Prototype Demo - by 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

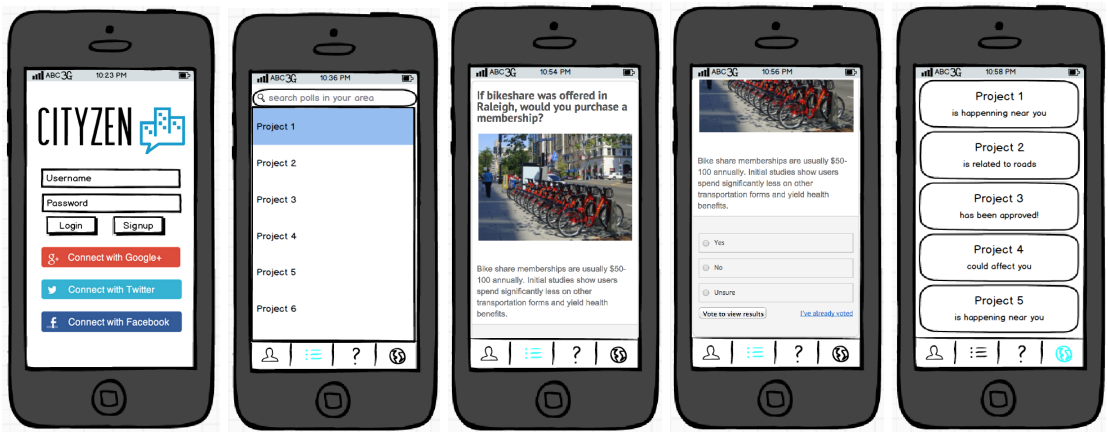
Sprint #3 - Baseline Prototype - by October 20
1. Login APIs
2. user cookies on requests to web server
3. push native notifications

Sprint #4 - Alpha - by November 5
1. notifications by category
2. GPS notifications

Sprint #5 - Beta - by November 19
1. Fix bugs - TBD

Sprint #6 - Production - by Dec 11
1. Fix bugs - TBD

GUI:


CITYZEN
Username
Password
Login
Signup
Connect with Google+
Connect with Twitter
Connect with Facebook
search polls in your area
Project 1
Project 2
Project 3
Project 4
Project 5
Project 6
If bikeshare was offered in Raleigh, would you purchase a membership?
Bike share memberships are usually $50-100 annually. Initial studies show users spend significantly less on other transportation forms and yield health benefits.
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Yes
No
Unsure
Vote to view results
I've already voted
Project 1
is happenning near you
Project 2
is related to roads
Project 3
has been approved!
Project 4
could affect you
Project 5
is happening near you