SW Engineering CSC648/848 Section 02 Spring 2018

Milestone 1

US Environmental

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Team 09

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History Table:

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<u>Executive Summary:</u>

Parks and recreational areas are great places to rest and relax. However, since these areas are public, maintenance has always been an issue. Problems ranging from dangerous litter, such as broken glass, to broken swings or drinking fountains can ruin an entire afternoon and if ignored can lead to costly litigation. Dispatching work crews to check on areas that don't have issues on a daily or weekly basis, is a costly waste of scarce resources and is both inefficient and impractical.

US Environmental believes that the responsibility of keeping our environment and more specifically, our parks clean falls on us. We provide an efficient and easy-to-use forum that allows users to search for the status of cleanliness of a public space, existing issues, and post about problems that need to be resolved. This will allow cities to save money and not need to designate an absurd amount of money for consistent maintenance. This will allow for a more efficient use of city resources jobs and in future releases allowing groups to bid for the cleanups.

The team at US Environmental is comprised of six individuals that all feel strongly about our environmental responsibility and work tirelessly to make sure that our parks and public spaces are clean and safe for everyone. The back-end team comprises of Greg Strom and Alonzo Contreas, with Greg as the back-end lead. The front-end team is comprised of Siri Motamarry, Patrick Wong, and Zhewei Zhang, with Siri as the front-end lead. Tony Chen is the team lead.

<u>Use Cases:</u>

Unregistered Users (View only):

Jane is a college student at SFSU wants to visit the local park around her apartment. The last time she visited the park, there was a lot of trash all over the field. Before she heads out this time, she heads over to www.us-environmental.com to check on the status of the park. She **searches** the site for the park she plans to visit and finds reported issues at the park

1) The current **case status** is closed, with a short note stating what issue was fixed and when, so she heads out and ready to enjoy the day at the park.

Or

2) The current case status is open, with a short note stating the current complaint, so she decides to stay in or go to the cafe instead.

Registered User:

David is a 45 year old father of 2, staying in San Francisco with his family and wanted to take his kids to the park so that they can play and have fun. During his visit, he finds a large spill of something that looks like oil in the kids' sandbox He pulls up the www.us-environmental.com website on his phone, **searches** for the park he is at, and tries create a new post and this is when the website prompts him to register. So, he goes ahead and **registers** as a new user by entering basic data such as name and email. He then **creates** a post stating the situation at the park. He takes a picture of the spill and attaches the photo with the post created. On his way back, he realizes that he did not describe the situation correctly. He logs in, **edits** the post, and saves the changes to it. Later in the evening, he opens the website and checks the **case status**. Since David sees that the issue is closed, he knows that can safely take his kids to the park without needing to worry if there is waste in the sandbox.

Admin:

John is the administrator for the website: www.us-environmental.com. His job is to ensure the quality of user posts, comments and assign work. He logs into an admin account exclusively for city employees. In the admin page, he can see the latest posts and check for updated posts from registered users. John can check the details of each post. If he sees any inappropriate posts, he can **delete** it. No user is allowed to modify any data (except their own) admin users can delete inappropriate content. John will be able generate a report of all issues reported by registered users and check the current status. This way of issues so the city can provide better services and the city residents.

Data Definitions:

Unregistered users - Shall be able to search and view current posts and issues.

Registered users - Shall be able to register, create, and edit posts.

Admin - Shall be able to monitor/block posts. Shall not be able to edit other users posts.

Search - Users shall be able to find specific park/location

Case status - Shows current state of park/location

Register - User shall be able to register to allow them to post, upload pictures and edit posts.

Creates - User shall be able to create a post.

Edits - User shall be able to edit their posts.

In future releases we plan to add in a feature that allows for city pre-approved subcontractors to search for open issues and bid to fix them.

Competitive Analysis

- : does not have   + : has the function

	epa.gov	epa.ie	broward.org	us-environmental
Text Search	+	+	+	+
Browse	+	+	+	+
Account Mgmt	-	-	-	+

Functional Requirements:

1. Unregistered users shall be able to search for any park in the Bay Area. - Search will be through a list or search bar.

2. Unregistered users shall be able to view all posts. - Posts will be at the bottom of each park page.

3. Unregistered users shall be able to flag posts. - Each post will have a button that can be clicked if the post is inappropriate.

4. Registered users shall be able to do everything that unregistered users can. - This includes search, viewing posts, and flagging posts.

5. Registered users shall be able to post on forums. - This is just comments regarding said park.

6. Registered users shall be able to create tickets. - Tickets are how users can inform the admins about a situation that requires attention.

7. Registered users shall be able to edit their own posts. - In case users need to update a post or ticket, they can log in and edit their post. However, the post will have an (edited) tag after an edit.

8. Administrative users shall be able to do everything that registered users can. - This includes posting as well as editing posts.

9. Administrative users shall be able to delete posts. - If an administrator deems that a post is inappropriate, user can delete a post.

10. Administrative users shall be able to ban accounts. - If a user consistently makes inappropriate posts, administrators can ban the account.

Non-Functional Requirements

- System shall respond within 10 seconds.
- File size in no time shall exceed 2 Mbytes.
- Users with a high-school diploma shall be able to complete any task within 5 minutes with no more than 2 errors after 1 hour of training
- Full name and email shall be collected as data. The data shall only be used to confirm the identity of a poster.

High-level System Architecture:

- Server Host: AWS 1x 2.5gHz CPU 1GB RAM
- Operating System: Ubuntu 16.04
- Server Database: MySQL 5.7
- Web Server: Apache 2.4
- Server-Side Language: Javascript 1.8
- Web Framework: Bootstrap
- IDE: InteliJ
- URL: us-environmental.com

Team:

Team Lead: Tony Chen

Front-End Team: **Krishna Sirisha Motamarry**(Front-End Lead), Zhewei Zhang, Patrick Wong

Back-End Team: **Greg Strom**(Back-End Lead), Alonzo Contreas

Checklist:

- Team found a time slot to meet outside of the class   **Done**

- Github master chosen   **Done**

- Team decided and agreed together on using the listed SW tools
  and deployment server   **Done**

- Team ready and able to use the chosen back and front end frameworks and those who
  need to learn and working on it   **Done**

- Team lead ensured that all team members read the final M1 andagree/understand it
  before submission   **Done**