eCPAT: Advancing public park information and technology resources to diverse audiences for healthy communities.

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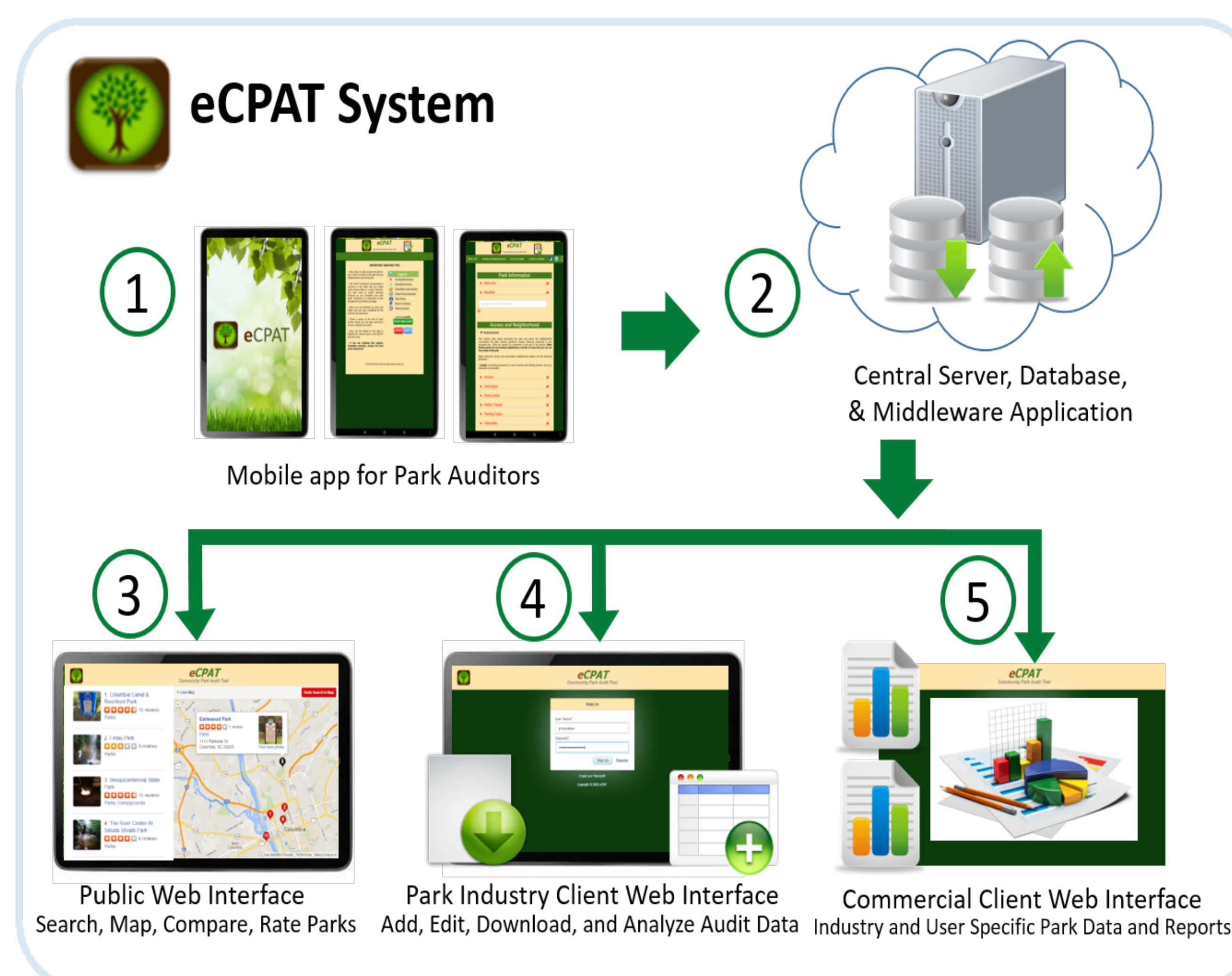
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Introduction

- Parks are important community public health resources that can positively influence healthy behaviors.[1]
- Parks are associated with numerous psychological, physiological, social, economic, and environmental benefits. Yet, they are frequently underutilized.[2]
- The Community Park Audit Tool (eCPAT) provides a comprehensive yet user-friendly means for collecting park data.[3]
- The eCPAT is a valid and reliable evidence-based tool for auditing local parks and engaging community stakeholders.[3]

Objectives

- The purpose of this study was to evaluate the availability, accessibility, and quality of parks across Richmond County and develop a publically-available, user-friendly web-interface to promote park use among residents.

eCPAT System Visual

Figure 1. Proposed eCPAT System, with the Step 3 (development of a Public Web Interface) the focus of the current project.

Methods

- Using the mobile eCPAT application, we audited all parks in Richmond County, Georgia (n= 55).
- Each park was audited for park information, access and surrounding neighborhood, park activity areas, and park quality and safety.
- Webpage development, using park audit information, was designed to illustrate a user-friendly, consumer model (e.g., Hotels.com, Expedia.com) to aid park consumer choices.
- The webpage was developed using Bootstrap, the front-end framework supported by Twitter, as framework offers pre-styled widgets aid in building the website quickly and allows for future internal changes.
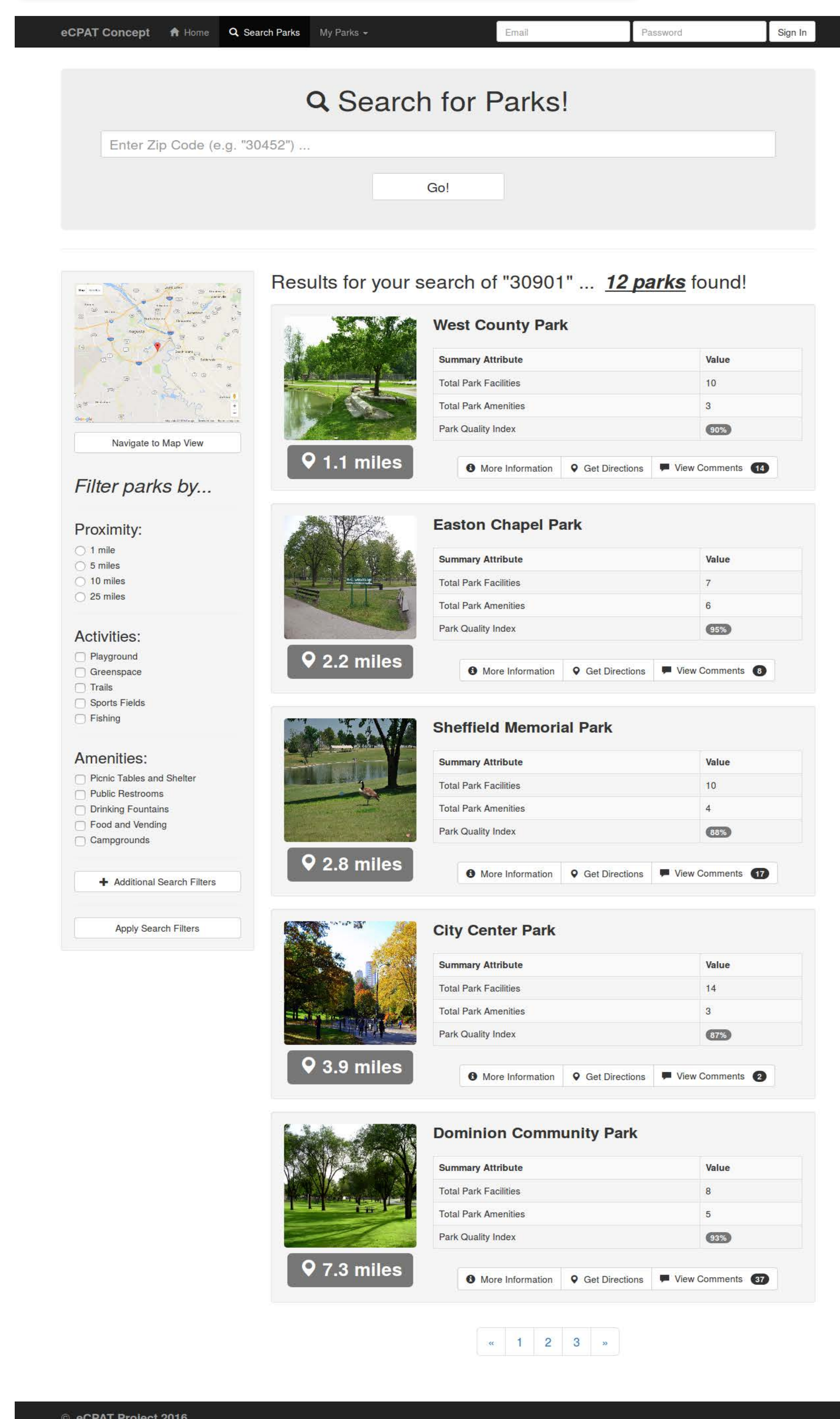
Webpage Example

Figure 2. eCPAT Public Web Interface

- At the top of the webpage (Figure 2), users can search for parks by typing in their home's zip code.
- A list of parks and general information (park name, address, and attribute summary) within the vicinity of the users zip code are listed in order of proximity.
- In the upper left corner, an interactive map is provided as a visual of park locations in reference to the zip code.
- Users can switch back and forth between map and list views of results.
- In the left side bar, users can select park filters such as Proximity (e.g., 1 mile, 5 miles), Activities (e.g., playground, trails), and Amenities (e.g., picnic tables and shelters, restrooms) to tailor park search results to best suit their needs.
- Users can select More Information to find out additional details about a specific park of interest.
- Users can View Comments from previous park users to understand social and environmental context
- One a user decides on a park to visit, they can click Get Directions to obtain navigation information.

Lessons Learned

- A consumer-model interface (e.g. Expedia) was decided upon due to its effectiveness in assisting consumers in making personalized decisions, such as the best park for their PA needs.[4]
- Website functionality, such as a Navigation and Search Module (e.g. search tab, map,) and the Evaluation and Selection Model (e.g. proximity, activities, amenities filters) were used to optimize the consumer's decision-making process of park selection. [4]
- We used data collected with the eCPAT associated to be important for park visitation and active use to display on the webpage to best benefit park consumers.[3,5]
- Replication of an intuitive, appealing webpage requires time commitment for creation and testing of multiple iterations and concise decision-making strategies for development of a clean consumer model web interface.
- Additional expertise like web design, graphic design, and understanding of the consumer model are beneficial to the process.

Implications and Future Directions

- The goal of the website is to engage community stakeholders in utilizing these important (freely available) community resources for physical activity and health benefits.
- We will test the website with community members to receive feedback about functionality and usability of the webpage. As the Bootstrap software is flexible in making internal changes once a webpage is established, we will be able to make improvements to the site's infrastructure, once feedback is received to improve the website structure.
- Once the website is tested and accepted by community members in Augusta, we plan to develop a user-friendly mobile application version of the webpage.
- A future goal of the webpage and mobile application is to be used by physicians and other healthcare providers to recommend park resources for Park Prescriptions style programs and to improve community health outcomes.[6]

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