#### Introduction

The thousands of students living and learning on RPI’s campus, not to mention the countless staff members upholding the community, are all prone to misplacing and losing personal belongings. To counteract this, RPI has countless lost and found services all throughout the campus. The problem arises when you do not know where to start looking for your lost item. As noted on the school’s Public Safety Office’s website, there are many lost and found receptacles and stations all around campus, yet the school lacks a centralized and easily accessible lost and found system (“Public Safety.”). The aim of the project is to centralize the lost and found system online to make it so people can report items they lost or items they found, alongside querying for items currently in the lost and found system. This would be done in the effort to resolve the issue of lost items in a reactive manner that is less time consuming and easier to navigate, thus making it easier and faster to find or report something you lost.

#### Progress to Date

As of the time of drafting this project plan, various steps involved with both planning and executing this project have been taken. Most notably, this project employs the use of a MariaDB database, accessed via MySQL queries that are called at the users’ discretion. For example, a user who would like to report an item they’ve found would have the ability to attach all the necessary information–such as an image of the item, the location found, and preferred contact information–which would then be submitted in a POST request to the PHP script. Similarly, a user who would like to search all lost items for a particular item by its description and characteristics would follow a similar procedure, by defining the characteristics of the item and submitting a GET request to the PHP script. To date, the database has been nearly fully initialized, including the proper tables and columns for straightforward and efficient querying from user requests. The next steps that are to be taken on the backend involve creating the PHP scripts that will be accessed by client-side JavaScript calls to submit and retrieve data from the database.

In terms of frontend deliverables, basic wireframes for the Home, Lost, and Found pages have been created and committed to the group repository on GitHub. Although most of the preliminary work involves setting up the backend, frontend development happening simultaneously allows for faster and more efficient completion of this project; therefore, the current implementation of these HTML wireframes includes and will include in the next few days a basic HTML input form for inputting lost and found data, hyperlinks and appropriate headers and footers to navigate between pages, and contact information for both the RPI Office of Public Safety and our development team.

#### Deliverables

The following table outlines the milestones and deliverables for this project over the given course of the remaining semester:

| **Deliverable/Milestone** | **Expected Completion** |
| --- | --- |
| Create database | Oct. 27th |
| Wireframe for Home, Lost, and Found pages | Nov. 5th |
| Create PHP scripts to query database | Nov. 5th |
| Integrate frontend and backend via PHP & JS | Nov. 12th |
| Format Home, Lost, and Found pages with CSS | Nov. 19th |
| Final UI Touches | Nov. 26th |
| Term Project Final Presentation | Nov. 30th |

As mentioned previously, the creation of a MariaDB database allows for efficient and secure storage of items both lost and found, as well as a log of previously lost and returned items. Outlined to be completed by November 5th is the creation of PHP scripts that will partially bridge the gap between the frontend and backend, only to be fully interconnected by November 12th with the creation of JavaScript functions to call the PHP methods and thus query the database.

The wireframe designs for the Home, Lost, and Found pages are crucial to the design and implementation of this project. By initially starting with a simple UI mockup and progressing towards the final design with the increased use of CSS, the UI will provide straightforward guidance to the end user. Upon the implementation of any final UI touches by the week of presentations, the user interface will be polished and easily digestible, employing appropriate color scheming and layout per common web application decorum.

#### Next Steps

From this point in time, the immediate next steps in this project are to finalize the wireframe designs for the HTML pages and create the PHP scripts to interact with the database on the server-side. The Home page’s wireframe design will include an introduction to the application and address the goal of the project, followed by the necessary hyperlinks to navigate around the website and the appropriate header and footer. The Lost and Found pages will be similar in structure, allowing users to outline items they are declaring lost or declaring found somewhere in the area. Through the use of an HTML form, the end user will have access to the database via POST and GET requests made accordingly on form submission.

Additionally, the creation of a handful of PHP scripts to each query or insert data into the database will integrate the frontend with the backend of this web application. Once the necessary JavaScript is written to create POST and GET requests to these PHP scripts, the entirety of the client and server-side will be integrated as desired. The upcoming completion of these outlined deliverables will allow the remaining aspects of this project to closely follow the outlined milestones, appropriately and effectively implementing this solution in the interests of students and faculty at RPI.

Works Cited

“Public Safety.” *Services | Public Safety*, Rensselaer Polytechnic Institute (RPI), publicsafety.rpi.edu/services. Accessed 1 Oct. 2023.