The goal of our project was to create an organized database that students can access and interact with online. The database is designed to efficiently store numerous items along with as much information the user can provide or choose to give about that particular item. In addition to this, upon each successful entry the database will scan previously entered items, along with their details in attempt to find a match. If a match is found both the finder and looser are notified via email or text.

**BACKGROUND**

The purpose of our project was to create an organized database that students can access and interact with online. The database is designed to efficiently store numerous items along with as much information the user can provide or choose to give about that particular item.

**PURPOSE**

In today’s world, items such as

- Cell Phones
- Handheld Devices (like I-pods)
- Laptops
- Books
- Bicycles
- Miscellaneous

are a crucial tool to any modern day college student. These items store our music, contacts, assignments, schedule, and passwords. Losing one of these items is not only a financial loss but can also be the cause of much grief.

The purpose of our database is to help students reconnect with their lost items by creating an online lost and found database. Allowing student's to report items they have lost as well as found.

**DESIGN PROCESS & WALKTHROUGH**

**DRUPAL**

Because our database is intended to be available to all who wish to use it and synchronized in real time, it only made sense to use a web based platform. Using Drupal as a front end, users are able to interact with all of the features of the database.

**PHP & MYSQL**

As is popular with websites MySQL was chosen to manage the database itself. To control the actions of the website and the information parsed from the database PHP was chosen as the primary language to use. PHP is not only easy to learn but has extensive support for MySQL. In addition to PHP, JavaScript is also used lightly to validate input from the form.

**FACEBOOK API**

To deal with user authentication and secure sessions we use the Facebook API. When logged into Facebook each user is given a randomly generated unique serial number which Facebook uses to identify each of its users. The Facebook API allows us to create and interact with existing users Facebook sessions. This not only helps lighten the load on our database, but also helps ensure each user is who they say.

**SCENARIOS**

**CASE #1**

In the case where a user who has lost an item wants to check if it has already been registered as found, they can enter as many defining attributes about the item they can recall, and sift through results accordingly. If no items have matching attributes, a new one is created and marked as "lost".

**CASE #2**

Similar to the first scenario, in the case where a user who has found an item wants to report it, the database will first attempt to find any exiting items marked as lost with similar attributes, if no similar items are found a new one is created and marked as "found".

**CHALLENGES**

Throughout the creation of our project we encountered a few problems which had to be solved before proceeding. First, we had to ensure that all user input is first validated before being entered into the database. This is very important for a multitude of reasons. This helps not only ensure the user entered valid text into the form, as well as prevent duplicate items from being entered. But it also needs to be able to strip any undesired characters which are not alphanumeric. Also while items must be accessible to those searching, it must also prevent openly leaking the details of a particular item. Otherwise, malicious users could potentially claim ownership of items they do not own. To free the database as well as site from any authentication issues, the Facebook API is used. This API, allows an existing or created Facebook session to validate users.

**By:** Alexander Lubneuski & Dan Reuven

**Advisor:** Abdallah Khreishah