

CU Lost & Found Web-application

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Purpose

The CU Boulder Lost & Found web-application was designed to become a new secure resource for students and faculty who have lost or found items on campus.



Tools Used

	Jira Software	Product Management	★ ★ ★
	GitHub	VCS Repository	★ ★ ★ ★
	MySQL	Database	★ ★ ★ ★ ★
	Embedded JavaScript	Templating Engine	★ ★ ★ ★ ★
	Visual Studio Code	IDE	★ ★ ★ ★ ★
	Heroku	Deployment environment	★ ★ ★ ★



Product Management: Jira Software



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VERSIONS

EPICS Create epic x

All issues

- Basic-Homescreen
- Registration-Page
- Manage Listings
- Lost & Found Office Functions
- Notification/Messaging System
- Create Server

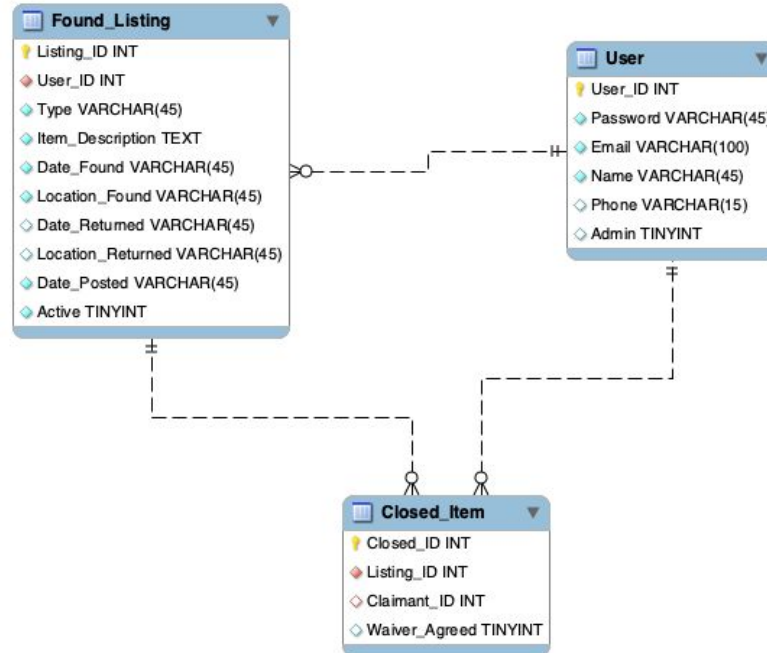
Issues without epics

Create Server	Create Server	AS	S17-28	↑	-
Link front-end to server	Create Server	AS	S17-29	↑	-
Link back-end to server	Create Server	[]	S17-30	↑	-
Edit a listing for a lost or found item	Manage Listings	[]	S17-10	↑	-
Remove a listing for a lost or found item.	Manage Listings	[]	S17-6	↑	-
Interface for Sign-In/Create Account page (Identikey?)	Registration-Page	AS	S17-4	↑	-
MySQL Database to store user/listing data	Registration-Page	[]	S17-11	↑	-
Add drop-down menu linking to other pages within the application	Registration-Page	AS	S17-12	↑	-
Add menu linking to all areas of the application	Basic-Homescreen	AS	S17-14	↑	-
Interface (Layout, banners, text)	Basic-Homescreen	AS	S17-13	↑	-
Interface/layout of search page and results	Manage Listings	[]			
Search for items based on type, color, location, and/or date found	Manage Listings	[]			

Quickstart







Database: MySQL





VCS Repository: GitHub




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 **nikkiifox** Added function which detects MySQL disconnect, reconnects. Also some ... 119c914 4 hours ago [History](#)

..		
database	Update Lost_Found_Database.txt	22 hours ago
node_modules	Bug fixes	22 hours ago
resources	few website changes	2 days ago
views	Added function which detects MySQL disconnect, reconnects. Also some ...	4 hours ago
.DS_Store	Bug fixes	22 hours ago
addItemCard.js	Search functionality complete	4 days ago
editAccount.js	Bug fixes, style changes	yesterday
editListing.js	Bug fixes, style changes	yesterday
login.js	Functionality for Manage Listings on Account page	6 days ago
package-lock.json	Bug fixes	yesterday
package.json	Bug fixes	yesterday
server.js	Added function which detects MySQL disconnect, reconnects. Also some ...	4 hours ago

<%= EJS %>

Template Engine: Embedded JavaScript



```
<% if(db_data.length){ for(var i = 0;i < db_data.length;i++) { %>
<div class="card" id="item<%= (i+1) %>">
  <div class="row">
    <div class="col-md-6">
      
    </div>
    <div class="col-md-6">
      <div style="margin-top:5%; margin-right:2%;">
        <h5 class="card-title"> <%= db_data[i].Type %> </h5>
        <p class="card-text">Description: <%= db_data[i].Item_Description %> </p>
        <p class="card-text">Date Found: <%= db_data[i].Date_Found %> </p>
        <p class="card-text">Location Found: <%= db_data[i].Location_Found %> </p>
        <p class="card-text">Location Returned: <%= db_data[i].Location_Returned %> </p>
        <p class="card-text">Date Returned: <%= db_data[i].Date_Returned %> </p>
        <p class="card-text"><small class="text-muted">Posted <%= db_data[i].Date_Posted %> </small></p>
      </div>
    </div>
  </div>
  <br>
</div>
<% } %>
<% }; %>
```



Framework: NodeJS



JS server.js ×

CU_Lost_Found > JS server.js >  app.post('/post_item') callback

```
1  /////MODULES/////
2  var http = require('http');
3  var express = require('express'); //Ensure our express framework has been added
4  var cookieParser = require('cookie-parser');
5  var session = require('express-session');
6  var app = express();
7  var bodyParser = require('body-parser'); //Ensure our body-parser tool has been added
8  app.use(bodyParser.json()); // support json encoded bodies
9  app.use(bodyParser.urlencoded({ extended: false })); // support encoded bodies
10 app.use(bodyParser.text());
11 app.use(cookieParser());
12 app.use(session({secret: "shhhhh", saveUninitialized: true, resave: true}));
13 ///////////////
14
```




IDE: Visual Studio Code



```
101-7-stackoverflows > CU_Lost_Found > JS server.js > app.post('/home') callback > select_statement

41
42 //Create Database Connection:
43 //Make sure to change this section depending on what your local database
44 //connection settings are (database, user, password will be different for everyone's local machine)
45 var mysql = require('mysql'); //Ensure our MySQL node has been added
46 const { equal, notDeepEqual } = require('assert');
47 const { select } = require('async');
48 var connection = mysql.createConnection ({ //connection variable
49   host: 'us-cdbr-east-02.cleardb.com',
50   database: 'heroku_21b8de9f9451838', //Change database, user, and password based on your local machine settings
51   user: 'b9bf07e27113ad',
52   password: 'e4cede31'
53 });
54
55
56
57 //Function taken from http://sudaall.com/node-js-handling-mysql-disconnects/
58 //Function taken from http://sudaall.com/node-js-handling-mysql-disconnects/
59 function handleDisconnect() { // Recreate the connection, since the old one cannot be reused.
60   connection = mysql.createConnection ({ //connection variable
61     host: 'us-cdbr-east-02.cleardb.com',
62     database: 'heroku_21b8de9f9451838', //Change database, user, and password based on your local machine settings
63     user: 'b9bf07e27113ad',
64     password: 'e4cede31'
65   });
66
67   connection.connect(function(err) { // The server is either down
68     if(err) { // or restarting (takes a while sometimes).
69       console.log('error when connecting to db:', err);
70       setTimeout(handleDisconnect, 2000); // We introduce a delay before attempting to reconnect,
71     } // to avoid a hot loop, and to allow our node script to
72   }); // process asynchronous requests in the meantime.
```



Deployment Environment: Heroku



cuboulder-lost-and-found.herokuapp.com/home



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Welcome, Nikkii Fox!

[Account](#)

[Logout](#)

CU Boulder's Lost & Found Page

Have you lost or found an item laying around campus recently?
If so, please continue below to post a new listing or search for a lost item.

Start here if you would like to begin
a search for a lost item.

[Search Lost Items](#)

Start here if you would like to post a
listing for a found item.

[Post Found Items](#)



User Acceptance Testing

- We used our app as actual users in order to make sure it could handle the required tasks in real-world scenarios.
- We tested all aspects of our app. Some important areas we tested are as follows:
 - Logging in as an existing user + registering as a new user
 - Posting a new item
 - Searching for items
 - Editing an item + changing active status
 - Editing account information



Methodologies

Agile Process

- Using ongoing sprints of project planning and execution, we were able to continuously adapt and mature our plan, scope, and design throughout the project.
- Biweekly meetings with stakeholders
- ★★ ★★ ★★ ★★

Peer Code Reviews

- Throughout the semester, we held team meetings twice a week to discuss any setbacks and conduct peer code reviews.
- ★★ ★★ ★★ ★★ ★★



Challenges

- Collaborating on the project simultaneously through GitHub
- Hosting the web application on Heroku and familiarizing ourselves with the ClearDB environment (for MySQL)
- Working closely alongside stakeholders from CU's Office of Information Technology to understand the expectations and requirements needed in order to integrate our web application into Buff Portal

Demo





Questions/Comments?