

# **The Lost Puck**

Team Name:

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ITWS 2110 Web Systems Development

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## **Summary**

Every student on RPI's campus knows that workloads get really heavy, and amidst all of the assignments, projects, and labs that you have to keep track of, it can be easy to lose track of everyday items. Life on campus undoubtedly gets hectic at times, however, now more than ever there are many web and mobile applications that students can use to try and manage their time, work, and life outside of school. This is where The Lost Puck comes in. The Lost Puck is a web application where users can post any item that they have lost or found on campus to a general message board. There is no well known, general space on campus where students can go to return any items, or search for some that could be in the lost and found. The only online space where all students can chat with each other is through WebEx Teams, but in the class of 24/25 page, messages tend to get drowned out by others and pushed out of the stream. Many messages, like those about lost items, also get ignored if they are too general. This is why a web application like the Lost Puck would be useful and provide students with a more effective form of communication than general chats with hundreds of people. In our web application, users will have the opportunity to post an item that they have lost, or to post an item that they have found. All of these posts will end up on the same message board, so every user can see them when they log in, but posts that show a lost vs a found item will be slightly different. If a user has found an item and would like to post it to the message board they will have the option to upload a picture, and create a caption saying when and where they found it. There will also be a 'claim' button on these posts that other users can click if they see the post and realize that it is their item. Once you click on this button, it will direct you to the other student's RPI email, so

you can get in contact with them and figure out how to exchange items. On the other hand, if you would like to report a lost item, you can create a post that will give you the option to upload a picture of your lost item, along with a caption saying when and where you may have lost it. There will also be a button on this post, but instead it will say 'found', so if another user finds your item they can click this button and they will be re-routed to email the user who posted the lost item. To ensure a level of safety among all of our users, they will have to log into the web application with their RCSid, to ensure that everyone on the platform is a student. There will also be banners and alerts that pop up on the website before submitting your post that educate users on how to safely meet up in a common area to retrieve their lost item.

### **Problem space**

College students are on the run for the majority of their day, going from one class to another, the gym, (right now the testing center) and their dorms. In their rush forgetting an item and misplacing something is super common. Many students carry most of their belongings for the entire day with them and keeping track of it all gets difficult. Losing small items like a pair of airpods, a student ID, a textbook or a wallet happens so often. By the time a student realizes a missing item, hours have passed and they could have left it anywhere. On a campus, so vast retracing steps could take an immense amount of time. At this point many students accept that their missing item is lost for good and start to think of a replacement, this not only could take time but it would also cost money. And for students in college money is not something that they have a lot of. Yes, if it is an important item, students have no other choice other than to repurchase their items. Yes, at RPI there is a lost and found box at the Union. This is not known and used by many people, it is not advertised and many students would not bring items they found to drop off at the lost and found bin. Since many people don't know about this box, students who have lost belongings don't think to check here for it. This box has basically become a graveyard for any items that somehow make it there. Other students have taken to

Webex to message the whole class about items that they have lost or found, but these notifications get drowned out by the other numerous messages that get sent in that chat on a daily basis. The general class chat is also not checked by everyone regularly.

### **Our solution**

The Lost Puck. The Lost Puck is an online site that allows RPI students to post items that they have lost or found. This site is designed specifically to help students find their missing items. Students log into the site using their RPI credentials and are able to send and receive notifications to other RPI students. They would also receive notifications to their RPI email because that is the information used to log in. This online “lost and found” box is more accessible, this way students don’t have to retrace their steps and or end up replacing missing items. Students who have lost an item simply post a picture of the item they lost, with a short description to easily identify it, and the time and place they have lost it (if they remember). This would then be posted for other students to see and if they find the item they would be able to click on the “Found” button of the item, and say their name and location and this notification would then be sent to the email of the student that lost it. The students can then agree upon a common area to exchange the found item. If a student finds an item they can take a picture of it with a description and the location that it was found at and post it. This would then be posted on the homepage of the site for other students to see, if a student sees an item that they have lost on their they can click to claim it and be asked their name, student ID and email. This is to make sure that even if they are a phoney their information is stored, and can be used to find them if need be. However in other cases the person can claim their item and this notification will be sent to the email of the person who posted the lost item. The two students can then agree upon a common place to exchange the item. The Lost Puck is a simple and easy way for students to find missing items and post about items that are missing an owner and connect the two virtually. This site is better then the lost and found located at the Student Union because students don’t need to go leave the items there. This platform is also better than using Webex because it is

dedicated just for missing items. This also saves students money that they could potentially need to use in order to replace the missing item.

### **Competitors**

The Lost Puck has few competitors on campus when it comes to other companies or web applications. There is a general campus lost and found in the Folsom Library, but not many students are aware that a common lost and found exists here. Having a web application for a lost and found space is also much more convenient for students, because they don't have to take the time to walk across campus to check if their item is in the lost and found, and risk the possibility of it not being there. The other main competitor that The Lost Puck has are the general class WebEx Teams spaces. The WebEx Teams class spaces are effective for sending a message out to the class, but if the message is not something of larger importance such as an event reminder, or an activity being held on campus, most of the chats in the space tend to get drowned out. Non-specific messages are not often paid attention to, and asking a class space to look for a specific item is not very effective. Providing a platform where users can all convene for the same cause is much more effective, because users will be more inclined to help and respond to each other. The Lost Puck is the first application of its kind for students at RPI, and it will strive to take some of the stress off of students by saving them time, as well as fostering a community of students who are willing to help each other.

### **Stakeholders**

The stakeholders of The Lost Puck application includes any student or staff member that is frequently on campus at RPI. Everyone gains value from this application, because there is no cost to post or access the application, and users will not spend any more money on replacing lost items. Our team would also like to figure out some way to work with RPI to create a rewards system for users who have found an item and gotten it back to the correct owner. If we could come up with some sort of reward for the user, this would incentivise them to use the application

more, as well as creating a better community at RPI. This is yet another way that users could gain value from using The Lost Puck.

### **Functional and non-functional requirements**

There are multiple functional requirements for creating a successful web system. The user will be able to log in with the RPI student authentication system. When the user reports a lost item, it will be uploaded to the Lost Puck message board so that other users with IDs will be able to see the post and verify the found item belongs to RPI community members.

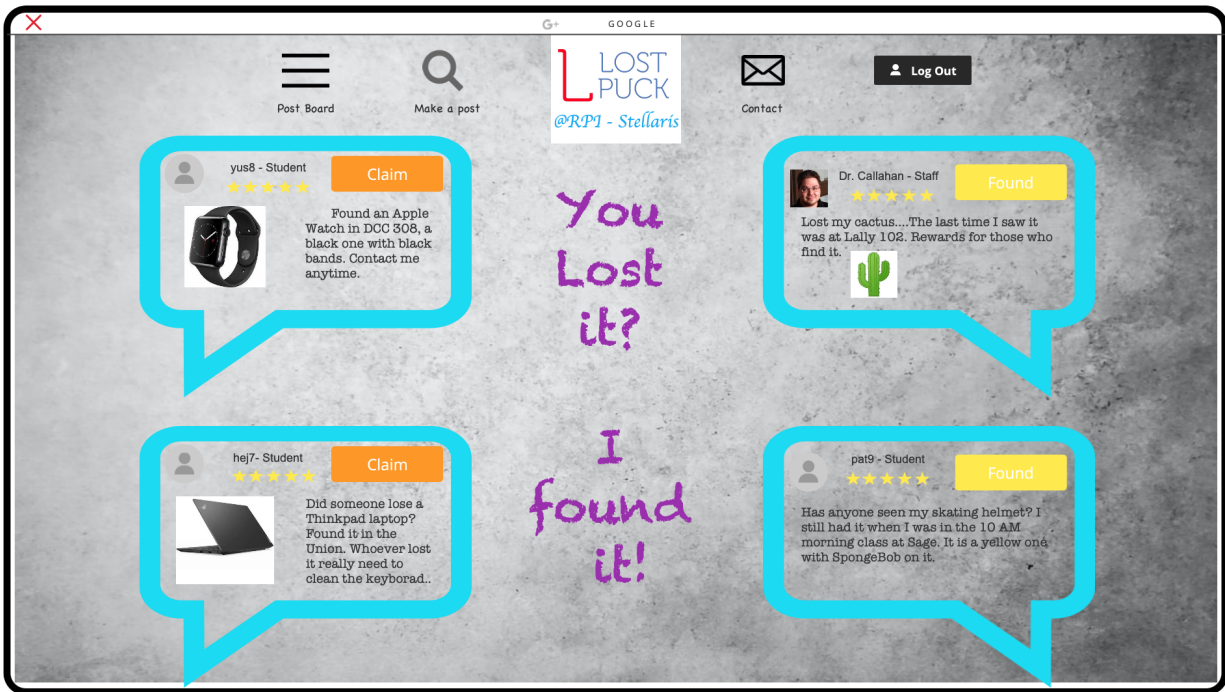
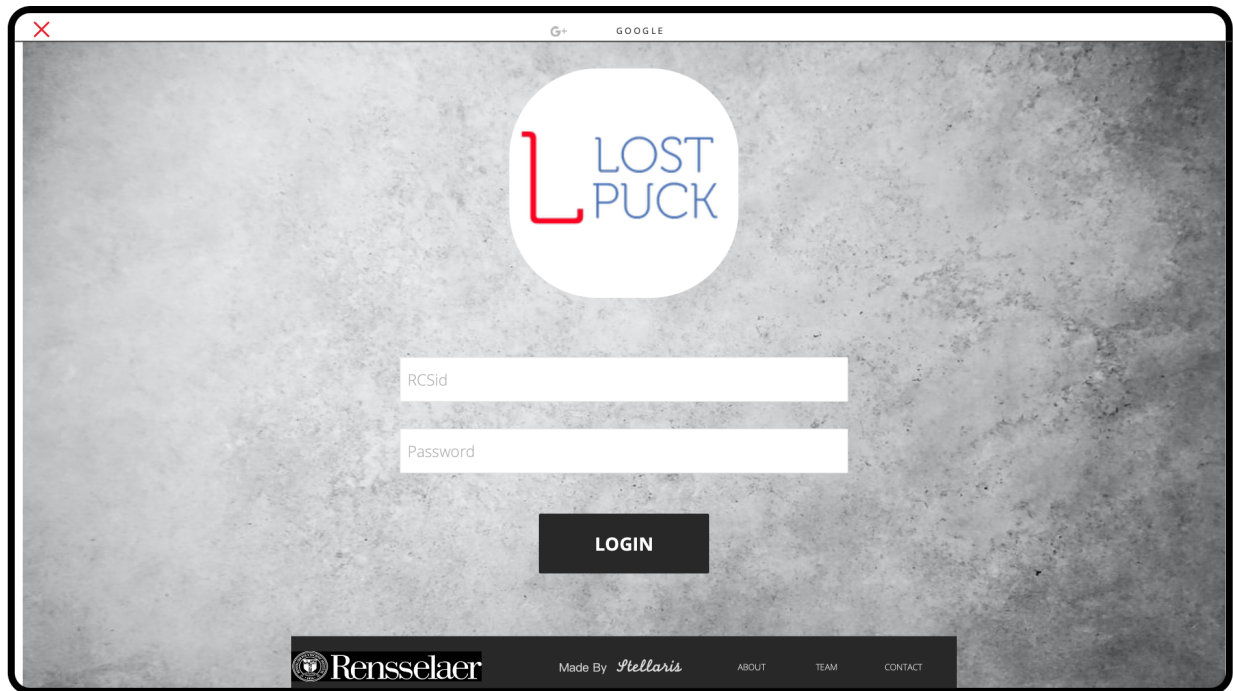
1. If a user found their lost item posted on the message board, the user gets to click a 'Claim' button to be directed to the student's email who posted an item on the board.
2. If a user found an item and would like to post it on the board to find the owner of the item, the user should be able to upload a picture of an item and add a comment or description.
3. If a user would like to report a lost item on the board, the user should be able to upload a picture of an item and add a comment or description.
4. If a user found an item and saw the lost item report on the board, the user should click on a "found" button to be directed to the student's email who reported a lost item on the board.

There are several non-functional requirements, including security, reliability, performance, maintainability, scalability, and usability. The Lost Puck uses an RCSID authentication to ensure that people outside of the RPI community shouldn't be involved in the Lost-Found activity. Also, a user's privacy will be protected as the system will re-route the users to the other's email when matched in cases of claim/found. Both users should be given guidelines to meet and exchange items safely. Since portability is a significant part of the requirement, the Lost Puck should be well built on a server to be accessible from every user's laptop regardless of their location. The Lost Puck should be able to be increased in size and stably maintained in the future. The reliability of the website will be achieved as we take feedback upon user experience and reflect on them to improve the system.

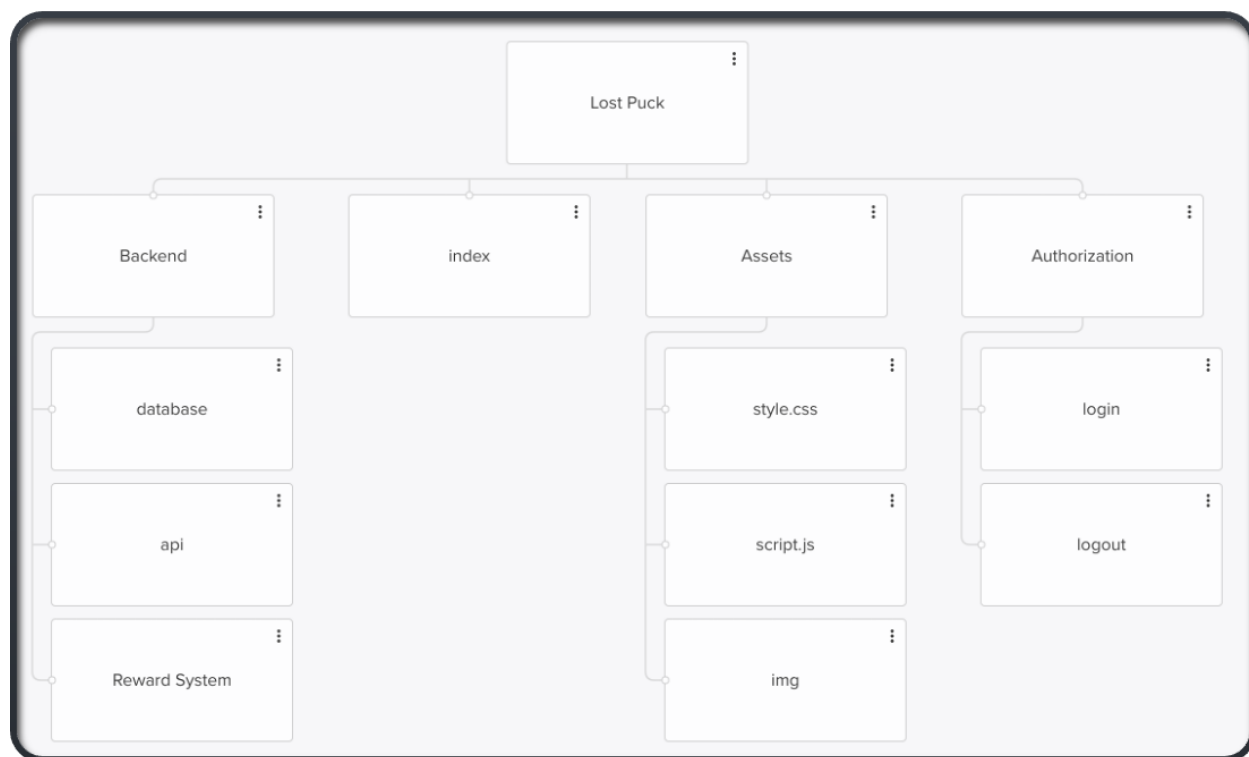
### **Interesting technologies**

An interesting technology that we are looking into adding is a Reward system. If a user has found items multiple times and returns them back to owners correctly, we will encourage them to actively interact on the system and improve it. With points rewarding system, users could accumulate points through interaction activity, and the cumulative point will be shown as their rating.

## **Wire Frames**



## Site Map





## Schedule

Task/Job	Deadline
Project Presentation and Proposal	Thursday, September 16
Mockup of the Web Application	Saturday, September 16
HTML and CSS	Saturday, September 25
Javascript Framework	Tuesday, October 5
Front-end work	Thursday, October 19
Database/ Back-end work	Thursday, November 4
Data Visualization	Thursday, November 11
Final Project/Presentation	Friday, December 3- Tuesday December 7