

CS4530 Final Project: FriendLink

Group 510: Ethan Schlosser, Wanqing Liu, Xunye Wang, Yifan Bao

Our Idea:

The original release of Covey.Town (demo: <https://spring2021.covey.town>) did not offer the player any movement options other than walking, which is rather slow. Though the map is currently rather small, it is still a bit tedious to navigate, and this problem would only get worse as the map size increases. It was this which led to the conception of the first of our features: **player teleportation**.

However, this raised some important questions. How will players decide who can teleport to them? How can we make this process easy to understand? How will we prevent the overuse of such a system? We came to the conclusion that we ought to implement a **friend list** to solve these potential problems.

We then wanted a feature that would build off of the social aspect of Covey.Town while complementing the friend list and teleportation system. We anticipated that players may want to quickly teleport multiple of their friends to them at once to participate in multiplayer activities. Additionally, they would have to be able to specify only a subset of their friends to teleport. With these considerations in mind, we decided to implement our **"groups"** feature. We then decided to add a new "hangout room" to the map that players could teleport their entire group to.

Demo and Source Code:

A demo of Covey.Town with our added features is available at: <https://spring24-project-team-510.onrender.com/>.

Our source code may be found at: <https://github.com/neu-cs4530/spring24-project-team-510/>



Circled are the button to open the friend menu, as well as a notification

Functionality:

Players can access all of our features via the new "Friends" button on the right sidebar. Upon clicking the button, the player will see their friend list, with other tabs for their group, incoming requests, and adding a friend. The "Add Friend" tab will also show players their player ID so that they may easily share it with others to add them as friends.

The UI is very straightforward by design, with all features being easily accessible and visible to the user. The player will also receive notifications upon receiving any kind of request, if the members of their group change, or if they try to teleport during the 60-second cooldown.

Technology and Design:

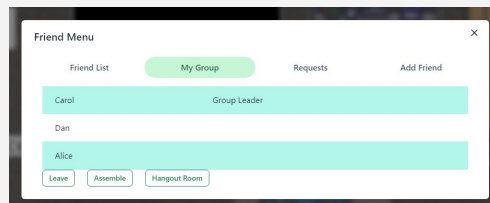
The only outside resource we used in development was Supabase to create our database, which we use to store users, friends, groups, and each type of request. Supabase provides an easy-to-use API that is integrated with React, which we used to allow the frontend to communicate with the database.

For teleporting, we get the other player's location directly from the teleporting player's TownController, so there was no need to store coordinates in the database.

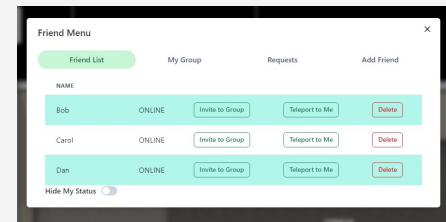
We deploy the live site using Heroku.

Future Plans:

In the future, we would implement a user registration system so that users' friend lists would persist after they log out.



"My Group" tab shows members, option to leave, button to assemble the group at the player's location, and for the group leader only, a button to assemble the group at the "hangout room"



"Friend List" tab shows friends, their current status, a button to invite to a group, a button to invite to teleport to you, and an option to remove that friend