

# CS4530 Final Project: Scavenge

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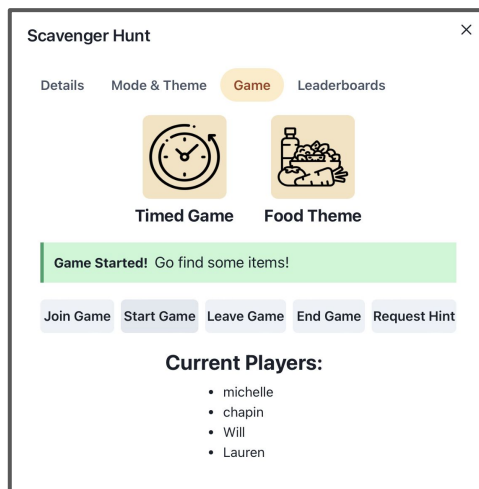
## Our Feature: Scavenger Hunt

Beyond the game room and conservation areas, we found a lack of engaging features for users. Particularly, there was no reason to explore the whole map because there was no features to interact with in those additional areas. To encourage users to explore the map, we decided to develop a scavenger hunt game for players to play across the map. In the game, users hunt to find objects across the map. There are two modes to play the game in; users can play in timed mode where there is a set time for them to compete against other players, or they can play in relaxed mode where there is no time limit and they can collect objects without pressure. There are different themes the players can choose and the top 5 players for each mode will be displayed on a leaderboard.

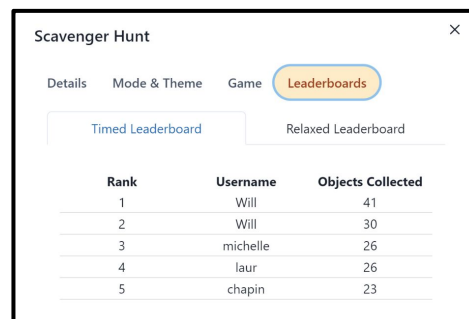
## Demo and Source Code

Demo Site: <https://covey-205.onrender.com/>

Code: <https://github.com/neu-cs4530/spring24-project-group-205>



Scavenge Frontend UI



Rank	Username	Objects Collected
1	Will	41
2	Will	30
3	michelle	26
4	laur	26
5	chapin	23

Top 5 Leaderboard

## Our Technology Stack & Design

We implemented the scavenger hunt feature in the existing covey.town codebase. The scavenger hunt area for each mode is represented as an object in the tilemap through Tiled. Objects are dynamically constructed when the game is started, and rendered on the screen by Phaser. When a player enters the scavenger hunt area, they can, pick a theme pack and game mode, join/start/end the game, request hints, and view the leaderboards. This area is shown through a React/Chakra modal. Areas are tracked by the CoveyTownController backend, and synced to each client using socket-io. The backend and frontend are extended from GameArea. When the game starts, objects to collect are rendered on the map through Phaser. Our database is hosted on Supabase. Our continuous integration pipeline runs an automated test suite on the frontend and backend, and then deploys the site using Heroku and Render.

## Future Work

In the future, we would like to have a trophy case that shows the objects you have collected in the past and what theme packs you have used. We would also like to implement a currency system and store. Users would earn coins by winning scavenger hunt games and would be able to use these coins to redeem new theme packs.



Items to Collect