

CS4530 Final Project: "Connect 4"

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Our Feature: Connect 4

Upon first glance at Covey.town, we noticed the lack of recreational activities. Considering its status as a sort of virtual office space, we thought it was important to add to this type of interaction.

We took the existing codebase of Covey.town and expanded it with the introduction of the game **Connect 4**. We also added a series of other features on top of that, including an ELO and leaderboard system, bots to play against when no other players are present, and a game replay system to view past games!

These features add a layer of complexity that we thought was lacking from Covey.town.

Demo:

Our demo is available at:

<https://covey-town-409-frontend.onrender.com>

Our code is available at:

<https://github.com/neu-cs4530/fall23-team-project-group-409>

Our Tech Stack and Design:

We built our database backend server in JavaScript with Express, and utilized MongoDB for the database itself. We utilized a series of DAOs (data access objects) in the design of our backend to separate our client interface from data access mechanisms. The codebase mainly consists of Typescript, Javascript, and React elements.

Connect Four and its features were implemented using extensions of GameArea abstractions in covey.town, along with React components and controllers which render UI elements when the user interacts with the game.

Future Work:

We could improve by consolidating all of our features in a single area and potentially beautifying our UI even more to create a slicker interface that fits with the theme of Covey.town. Additionally, there were some features we couldn't complete due to time constraints – allowing users to select custom colors, downloading game results locally, improved replay functionality, among others.

Also, more games! Connect-4 could be a starting point for a series of other games that are playable in Covey.town (i.e. checkers, battleship, etc.)

