

CS4530 Final Project: Closet Area

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Our Feature: Closet Area

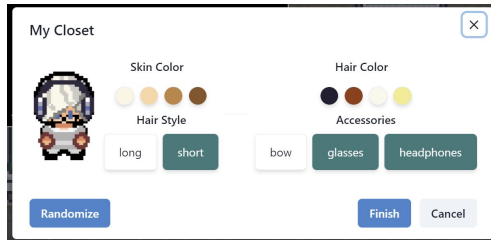
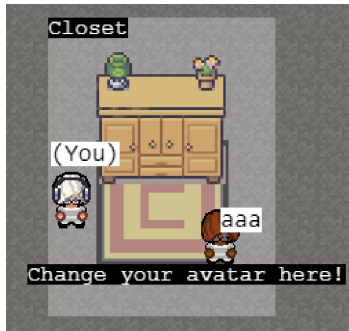
In the original release of Covey.Town, all users have the same avatar. This limits individuality within the space and makes it difficult for people to distinguish one another. For both regular users and those who are hoping to use the application for a more professional virtual work environment, this was a nightmare.

Therefore, to make Covey.Town a more fun and diverse space, we decided to implement a **Closet Area** where users can customize their avatars. Users will be able to select from multiple options for hair length, hair color and skin color of the avatar. They will also have the option to add accessories including headphones, glasses, and a bow. After saving their avatar, their custom look will be loaded anytime they log in.

Demo and Source

Demo site: <https://fall-22-team-project-group-412.netlify.app/>

Code: <https://github.com/neu-cs4530/fall-22-team-project-group-412>



Above: Closet pop-up to customize look (opened by pressing space bar in the area)

Left: Closet Area on the map, with another user who has customized their own avatar

Technology Stack

We implemented our feature by creating a new interactable area and modifying the map to have an area for the closet. When a player interacts with a closet, a Chakra modal pops up, showing the different options as well as a preview avatar that updates when a player selects a choice. Each player sees their own version of their closet to avoid conflict with other players. When they are done interacting with the UI, it sends an update to the town on the current player's avatar, and sends an update to the server through the existing socket connection to notify other players of the change. The TownGameScene file (which handles the textures in the town) was modified to store separate avatars for each player, and the avatar was created by using Phaser's texture classes to overlay different spritesheets on top of one another. TownGameScene is responsible for replacing the sprites whenever an avatar update is sent from the server. The selected avatar then has its data stored in the player's local storage, allowing the user to save their avatar data for future sessions.

Future Work

One feature we struggled with was dynamically changing pixel colors within an image due to how the file textures were set up. Future work could focus on refactoring this part of the code, which would enable a wider range of colors that would be available for the skin and hair colors.

Additionally, the avatar customization could be extended to including clothing colors and styles. This would require new sprite files and could build on the refactored color-changing code.

Another potential feature is the ability for users to save specific looks in their closet. This would enable users to quickly swap between different avatars if they wanted to make quick changes, like equip a new hair color with different combinations of accessories.