This project ended up being more of a tech demo fitting the requirements of the interview rather than a true game but I achieved the targets I set out to. First and foremost I created general and collision tilemaps to set up a scenery for the player to maneuver around, then I handled the player movement system. My initial approach was to make the movement more grid locked however I didn't like how it felt to play so I went with a more free-form physics way. The movement is locked behind raycast collision checks and functions on a *CanMov*e boolean flag. From here I implemented an interaction method, allowing the player to send an *OnInteract* signal when pressing *E,* later into development I refactored my code to handle this interaction using events for both the NPC's and the water for fishing. The NPC system was the next large step. I implemented a system that allows for easy creation of NPC gameobjects on the fly in editor. Each NPC supports custom dialogue and prompt options, along with multiple unique (or not) menu's, including shops. The shop system is tied to an NPC's inventory, however not every NPC must have a shop and anything available to buy can be sold. From here I had to add the item class to fill NPC's inventories, this was a simple task involving an abstract class to allow for expansion into specific item types such as consumables and equippables. Items needed a place to go so I created the player inventory which gets populated upon purchases and depopulated on selling goods. Equippable items had a straightforward implementation, however I did find the animation matching of new sprites a fun task. My solution involved an animation override controller for which I created matching animations with my new sprites for head and body gear which can be equipped directly from the inventory. The final thing I felt was important to work on given the time I had left was some sort of core gameplay loop. I decided to create a fishing system, which functions on a meter with a randomly decided valid catch range each time you interact with a water pool. Fishing spots have different loot tables based on their water type, and fish can be caught and sold to vendors.

I enjoyed creating this project, especially my NPC system, however during refactoring I felt there was a lot of room to improve. If I was to continue working on this I would first clean up all my code, I would then rearrange some systems such as my UIManager, splitting it up into its specific functionalities. I would also look to develop a slightly different architecture for the inventory of NPC's and the player alike, and maybe consider using scriptable objects for NPCs and items. I had never done my own 2D art before this project, some of the pixel art I drew myself and it was an enjoyable process so I've begun to consider practicing that more as it would help in the game dev process.