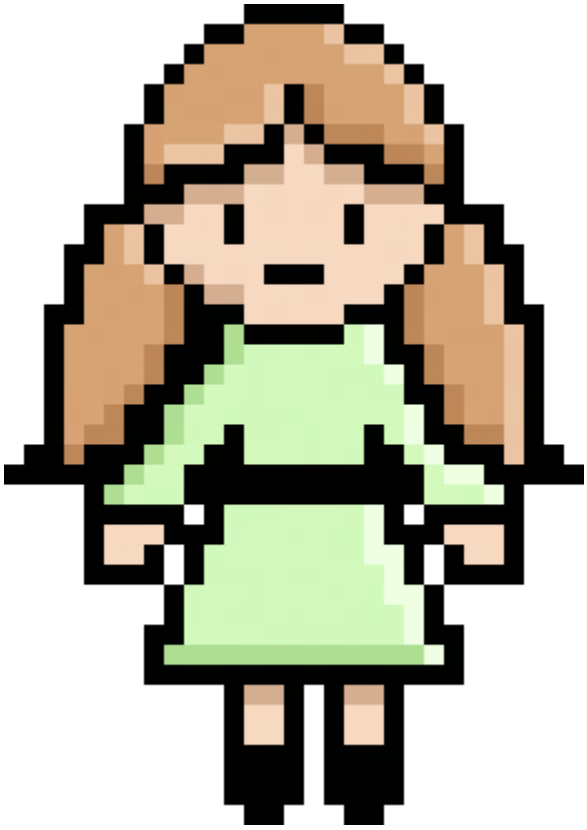
Hour 1:



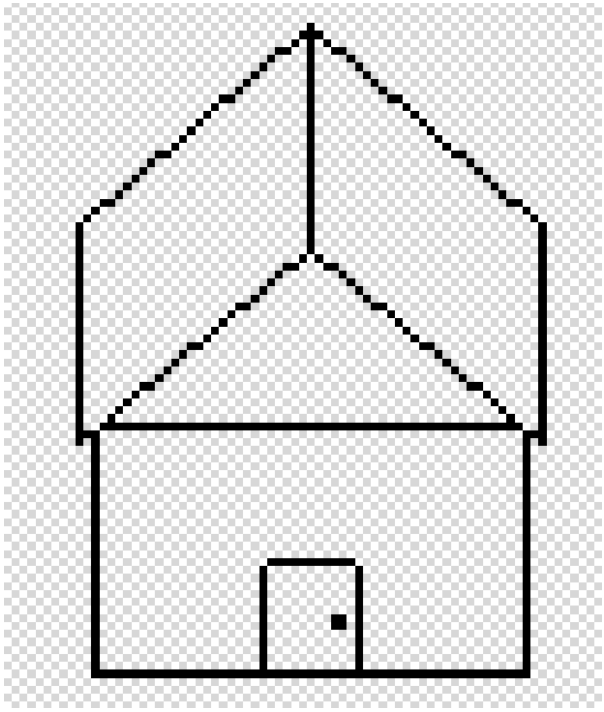
This pixel art image of a girl, who is going to be my main character, took me approximately 20 minutes to draw.

During this first hour, I focused mostly on creating a frame of the game, including a Main Menu page and an introduction. This took a while, since it was my first time using Unity and I am not too familiar with C#. However, I managed to get the Main Menu with a Play button. So far, this Play button takes players to the first, introduction, panel of the game, where they can click from one text box to another using a Next button to read more about the introduction to the story. Once they have clicked through all of the text boxes, clicking the Next button will take players to the next scene, although I have set this to be the Main Menu scene for now since I do not have any more panels yet.

The mp4 file titled **Project 1 - Session 1** in the Screen Recordings folder of the GitHub is a video showing what I have so far.

Hour 2:
During this second hour, I fixed some bugs with the game, such as the Next button having to be clicked multiple times after the last text box is shown to take players to the next scene (which was a pretty simple fix, as it was just a logic error). I also started creating a Map, which is going to be where players can access levels. So far, I have created three sprites/images for the Map, as seen below:

This pixel art image of a tree, which is used as a button for each level of the game, took me approximately 15 minutes to draw.



This sketch of the main character’s house took me approximately 5 minutes.

It took me 32 minutes just to render the house, would I get the entire time for that?? It might be a bit too much to give me for a single drawing.

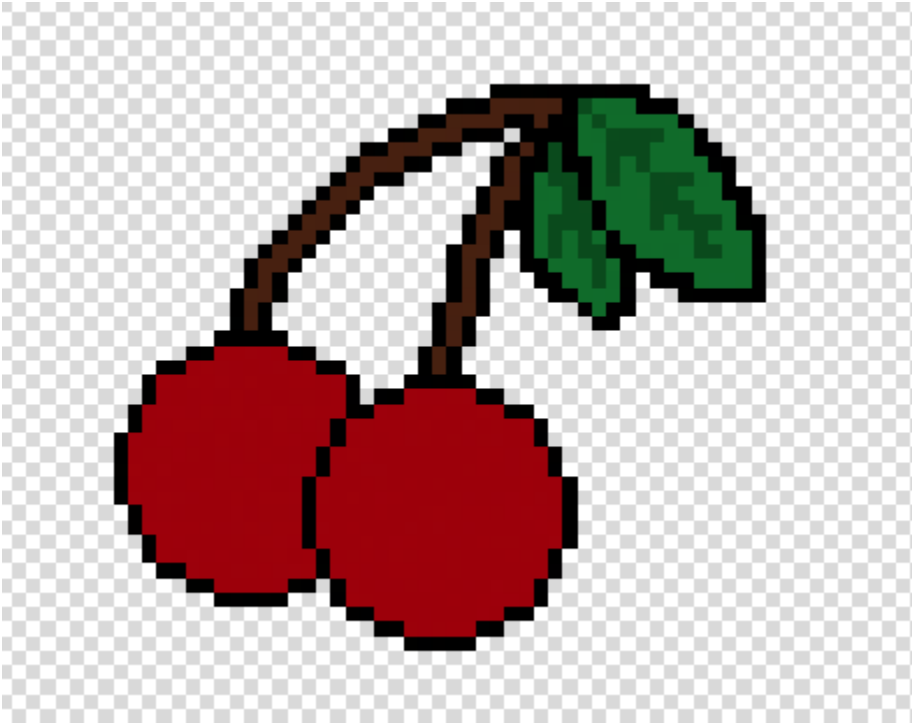
It took me approximately 10 minutes to draw this tree stump, which I will be using as level buttons for my game.

After drawing all of these, I focused on creating buttons to take players to each level of the game…and that took a lot of time. Initially, I wanted to turn the trees themselves into buttons, but afterwards I realized that the shape of the trees was a bit weird for that, so I decided to use

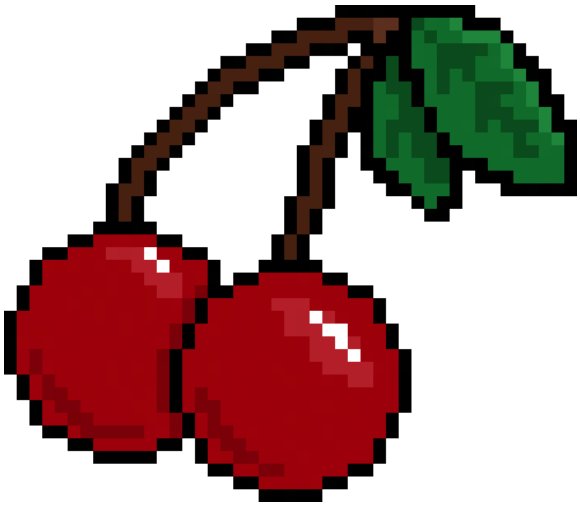
the tree stumps as buttons instead. Afterwards, I added collision circles to the tree stumps, and…it wouldn't work. So I spent a while trying to debug that, watched multiple tutorials on different ways to make the GameObjects clickable, and therefore tried multiple different ways to debug and get the GameObjects for the tree stumps to do something when clicked.

Hour 3:
During this hour, I continued working on making the tree stumps clickable. Eventually, however, I realized it was taking too long, so I decided to just add buttons over the treestumps for the time being so I can move on to the rest of the game. After making this decision, I realized I should change the size of the camera frame to be bigger to make it easier to work with, so I spent the next little while resizing everything on each scene of the game. Afterwards, I finally started adding buttons to the tree stumps. I created the first button for the first level, then moved on to creating the first level.

Hour 4:
During this hour, I started working on the first level of the game. I started creating more text boxes for the story text, but then realized that I needed a counter for my in-game "currency", berries, so I switched to working on that.



This basic drawing of the berries for my in-game currency took me approximately 10 minutes to draw.



Adding some shading to the berries, as seen in the image above, took me approximately 5 more minutes.

After creating this image, I started creating the counter for the berries. I coded the basics of that, then realized that I needed a way to give players berries, so I started creating a script for that, as well as a panel to inform players that they have received berries. This panel took a ridiculous amount of time, as I realized that to show this panel properly, I should change my method of changing the text. At the time, I had a separate text box for each “page” of dialogue/text, however I realized that I should change this to have just one text box and then just change the text, since this way I could access the text and code my program so that, if I had a specific string of text, I could make the panel informing players that they have received berries pop up. Changing this took a while, and is still ongoing, since I ran into a million bugs with this.

Hour 5:
This hour, I continued working on changing the method of changing the text to the next text box, which still isn’t working. The button to move to the next block of text won’t work, and neither will the button to close the panel telling players that they have acquired berries, so I’m trying to fix that right now.

…Eventually, I realized that the Next button was working for the opening scene, but not for the scene for the first level, so after a lot of trying to debug, I just ended up copying the components from the opening scene to the first level, and it (kind of) worked. The game is still buggy, since the buttons sometimes need to be clicked multiple times to get to the next scene, but it works.

After a bit more work, I finally got everything to work in terms of loading the blocks of text and clicking through them. I also managed to put together the scenes in a way that you can play from the first scene to the (current) last one. The only issue now is that the berry counter doesn’t actually increment, so I need to fix that.

Hour 6:

This hour, after making a lot of changes to my berry counter, and doing a lot of debugging since adding a single change seemed to cause five different issues, I finally managed to get the counter to work…in the main Map scene. Currently, I still need to change it to work everywhere, but that shouldn't be too difficult. Also, I need to change the level settings to only give berries the first time, or to limit how many times you can play the level.

After a bit more work, I got the berry counter to be consistent and work in every scene where I implement it. So far, I have it in the Map scene and the Level1 scene, however the only issue is that it only increments once I return to the Map scene from the Level1 scene. This is something that I have to fix, but since it's not causing too many issues for now, I'll leave it as is for now and work on the next part of the game.

I started working on the second level of the game, which is going to be an actual level and not just "You got some units of the in-game currency!". It was at this point that I realized that the player could still press the "Next" button without clicking the "OK" button in the pop-up panel telling them that they have acquired berries, and they need to click the "OK" button to get the berries. So, I spent the next little while trying to enable and disable buttons so that the player can only click the "Next" button after they've clicked the "OK" button…and then I realized I could just change my code so that the berries get added when the pop-up panel shows up. I'm still planning on working with disabling buttons, but I'm going to just change when berries are added for now so I can move on to the rest of the game.

The mp4 file **Project 1 - Session 2** in the Screen Recordings folder on GitHub has a recording of what my game looks like up to this point.

Hour 7:
I started working on making the level buttons clickable only when the previous levels have been passed, as otherwise, players could just go to the last level, which is not something that I want. I spent a long time trying to implement a bunch of ways to do this, however I ran into an issue with most of them: there was always something that couldn't be initialized, and my code was very messy in terms of static and non-static variables and functions (I had the static variables and functions so I could keep the number of the last level passed even as players move to other scenes). Eventually, I smartened up, and realized that my berry counter was basically the same thing as my level counter, so I could just do the same thing I did with the berry counter for the level counter.

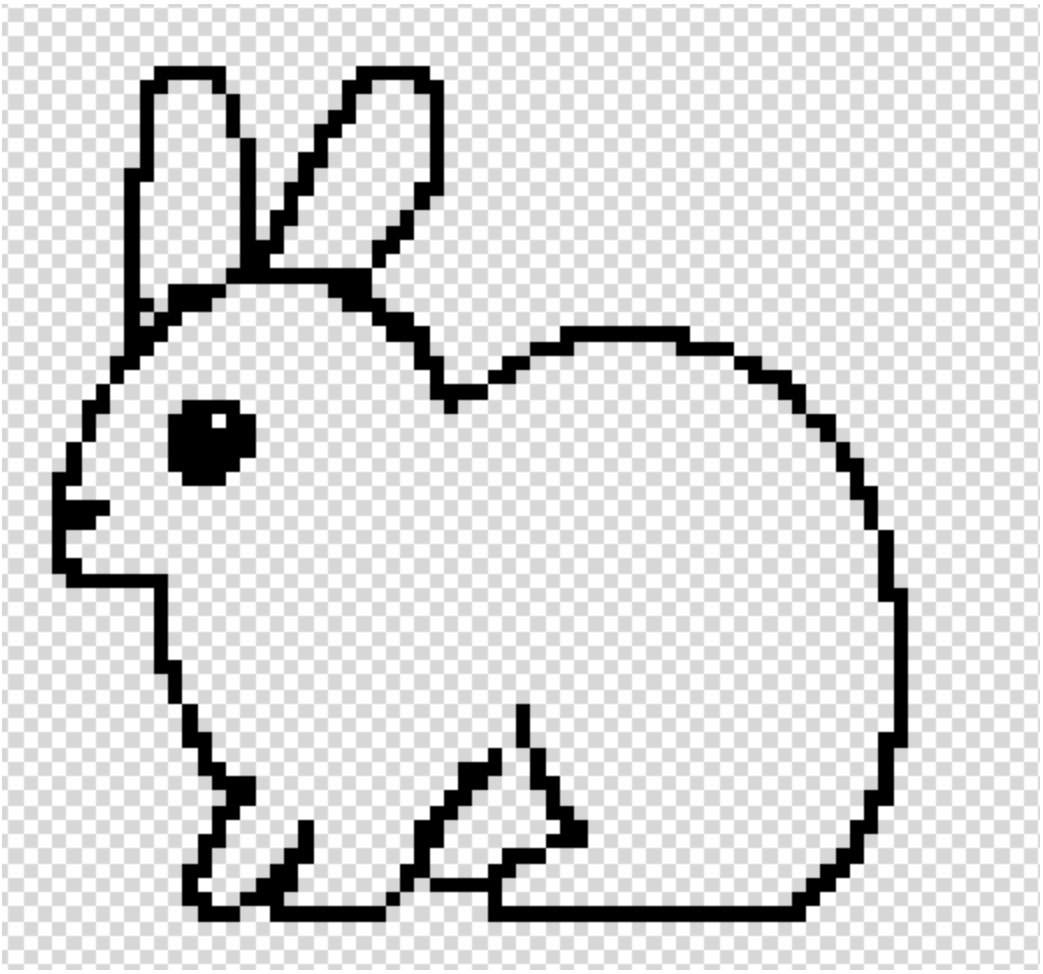
Hour 8:
This hour, I started implementing the new level counter, and, after some trial and error, I got it to work. Next, I moved on to another issue I had: my class for moving to the next text box assumed that it was in a scene where the player would earn berries, and where the last text box meant that the player had passed a level. However, this was not the case for my opening scene, so I tried playing around with the scripts to make an exception for this first scene. Eventually, however, I ended up just creating new scripts for this scene, since the issue was that there were

several components that needed to be added to the button scripts that didn't exist, or need to exist, in the opening scene.

After finishing this, I moved on to making the second level, and by that I mean I once again got distracted by trying to disable the level buttons until all of the previous levels have been passed.

…It was at this point that I realized that I didn't actually have my folder open on Visual Studio Code, just my files…meaning they were being tracked in another folder on Hackatime…called "Unknown", of all things. That explains why it felt like I was only getting half of my work tracked…because I *was* getting only around half of it tracked in my project folder, since the rest was being tracked separately, in their own folder, and I assumed it was because I was just slow. I basically gaslit myself into thinking I was doing more research and less work than I really was. This also means that, up until this point, the hours I have written (e.g. Hour 1, Hour 8) in the headings is the hours I spent working on Unity, not on VS Code, i.e. each hour of work I have written lasted…more than an hour, to say the least. Anyways, back to logging:

Hour 9:
This hour, I continued working on disabling the level buttons until the previous levels have been passed. Currently, the button for the second level won't work, and I suspect it might be because of my level counting, which is still faulty. For now, I'm going to just comment out the code relating to disabling buttons until I've finished more of my game. I'm going to move on to the second level of my game now.

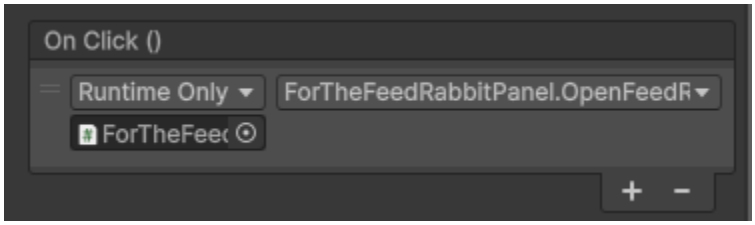


This rough sketch of a rabbit, which will be in the second level of my game, took me approximately 5 minutes to create.

Colouring/rendering this pixel art drawing of a rabbit took me approximately 15 minutes.

After I finished drawing the rabbit, I started creating the second level, which mostly had the same basic framework as the first level. I mostly focused on the framework and layout this hour, rather than the smaller details.

Hour 10:
This hour, I discovered the beautiful, beautiful thing that is adding components other than the button itself to a button's OnClick():



(In the image above, the button is called RabbitButton, but I added another component to its OnClick() function).
This made life so much easier, and more efficient, since I no longer had to create an instance of a component in the script for the button whenever I wanted to call a function in that component.

Moving on to more log-like things, this hour, I continued working on the second level. At the same time, however, I have realized that, rather than trying to make all of my gameplay for a

level happen in one scene, I could just create multiple scenes to make my code less convoluted, so this is what I have started doing. I have also decided to go to another scene whenever a panel is opened, as a workaround for the fact that I cannot figure out how to disable a button until a certain point in the game without creating a bunch of different, unnecessary GameObjects, and will be implementing that this hour.

Two minutes of working later, what I said above has become a lie. After realizing that I can attach other components to a button's OnClick() function, I have found a new way to potentially disable level buttons until the player finishes all the previous levels: adding functions in the LevelCounter class I have, and calling those functions in OnClick().

Currently, I have finished adding a function on LevelCounter, that I will be adding to the level buttons, that only allows a button to do what it's supposed to do when the levelCounter, which stores the last level that the player has passed, is greater than or equal to the level number of the button the player is trying to click on. This ended up taking a lot of time, partially because I'm just really bad at dragging and dropping on Unity properly, but mostly because this change to my method of not allowing players to access levels they're not on yet meant I had to make multiple small changes to several of my scripts. This meant that there were small bugs that kept popping up. Currently, however, although I haven't been able to increment the counter for which level the player is on correctly, I have managed to get the button for the second level working and detecting clicks properly, which means I just need to fix my counter for which level the player is on. However, I am very close to doing this, as I am working on incrementing the counter whenever the panel telling the player that they have completed a level shows up.

Hour 11:
This hour, I continued working on fixing the counter that indicates which level the player is on. Five minutes into the session, I realized something: my counter errors stemmed from a logic error, specifically the one seen below:

```
if (levelPassedNumber > levelNumber)
{
    levelNumber = levelPassedNumber;
}
```

I realized there were two errors here: one, the levelPassedNumber will never be greater than the levelNumber, and two, that i need to set levelNumber to be levelPassedNumber + 1, since otherwise, levelNumber would perpetually be the same. The following code, with two characters added, fixed everything:

```
if (levelPassedNumber >= levelNumber)
{
    levelNumber = levelPassedNumber + 1;
}
```

A video of how the game works so far can be found in the mp4 file **Project 1 - Session 3** in the folder titled Screen Recordings in the GitHub.

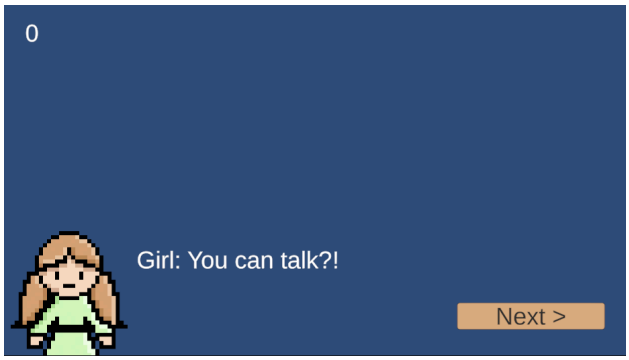
Now that I've managed to get the level button disabling and enabling to work, I'm going to move on to making my second level (technically level 1) look a bit less cluttered, since this is what it looks like at one point:

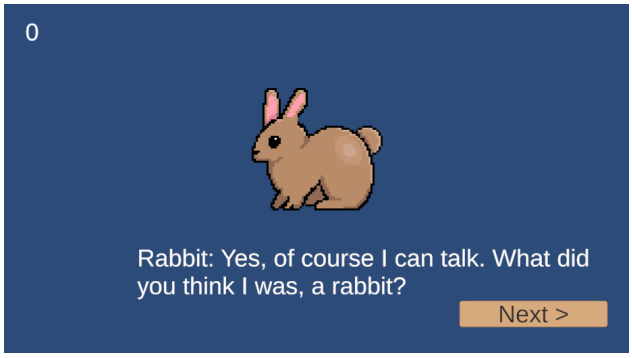
Five minutes in, I started fixing a small bug where the level counter would not increment except for at the first level, and then I moved back to the aesthetics. This is what the panel looks like, currently:

It still doesn't look great, but at the very least it's a bit less cluttered than it was before.

Hour 12:
This hour, I started working on the second part of level 1 (technically the second level), since I have decided that, instead of trying to do everything for each level in the same scene, I'm going to split the level up into multiple scenes to make it easier and less convoluted. I've finished the first part of the level, where the player clicks the rabbit to feed it, and now I'm going to move on to the second part of the level, which is more dialogue-heavy. Because there are multiple characters speaking in this part of the level, I'm working on creating a way for the character image on the bottom left to change depending on who is speaking.

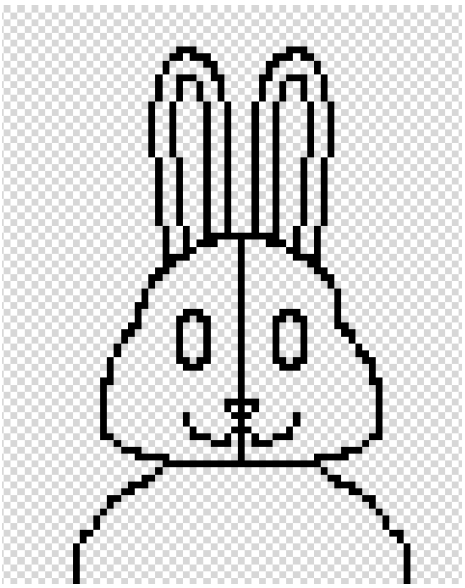
Initially, I started creating separate scripts for each character, but after a while, I realized that I could just use the same script and have a string value for the name of the character. After a lot of debugging, mostly with syntax issues and assigning GameObjects to buttons and scripts and such, I finally got the images to change depending on who is talking:



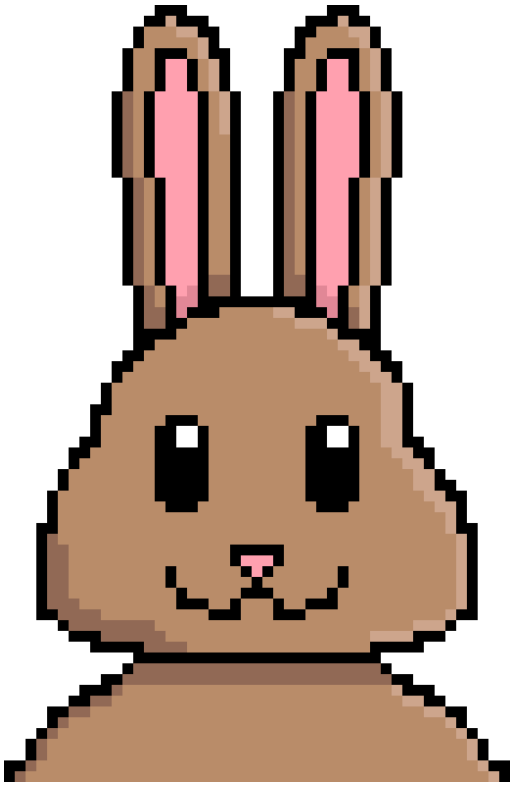


I still need to move the image for the rabbit around a bit to place it in the same spot as the image for the girl, but the code itself works.

Hour 13:
Because my hourly logs have been lasting more than an hour (even after opening my folder on VS Code), since it's hard to make logs after exactly one hour has passed if you're in the middle of debugging a feature, I'm currently on hour 13 in the logs, but 13 hours have already passed in Hackatime (so technically I'd be starting my Hour 14 logs). Anyways:

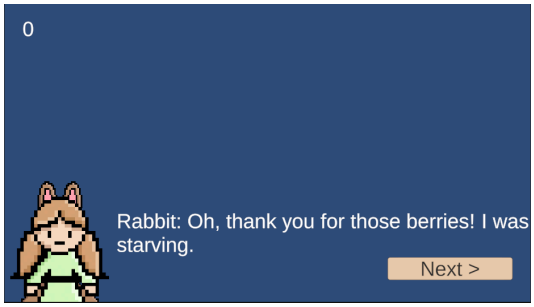


This sketch of the face of a rabbit, which will be used for the rabbit character in the dialogue scenes, took me approximately 10 minutes to draw.



Colouring/rendering the face (and making some minor changes to the drawing itself) took me approximately 15 more minutes.

After drawing this image, I added it to the dialogue scenes. I also added some code so that both characters are invisible when the scene is loaded, and then only the character who is talking is shown. I ran into a small issue where, for the first line of dialogue, both characters' images were shown:



However, I fixed this quite quickly and moved on.

The fifth .mp4 file in the Screen Recordings folder on the GitHub shows this improved dialogue.

Next, I worked on creating a way to remove the name of the character speaking from the dialogue box itself. I ended up just creating a new text box right before each time the speaker changed, displaying the character image, and then going to the next text box, for this.

The sixth .mp4 file in the Screen Recordings folder on the GitHub shows this improved dialogue.

Hour 14:
This hour, I started off by fixing some bugs that occurred due to the fact that I tried to use the same script files in several scenes in slightly different ways. For example, the “Next” button in the opening scene stopped working, so I fixed that. Other changes included:

- Going directly to the next scene once the rabbit is fed, rather than having the player click the “Next” button again. This took a while, since at first it was always just saying that the rabbit had not been fed yet, but I fixed it eventually.
- Only letting the rabbit be fed once, and otherwise informing players that they have already fed the rabbit
- Making minor changes to the dialogue aesthetics, such as by making the font size smaller

I also continued the dialogue for level 1, after the rabbit is fed. Doing so made me realize I might need to have different images for each character so I can make them have different emotions, which is what I will be doing during the next hour.

Hour 15:

Changing the face of the rabbit to be sad took me approximately 5 minutes.

I started implementing a way to change the character image based on the emotion of the character, and after a while, I found a bug where the rabbit ended up giving the player berries twice, instead of once. I fixed this bug, then went back to the character emotion images. I started creating another text entry in the textBoxes array for each emotion, but then decided to just append the emotion to the end of the character name, to reduce the length of that array.
Bugs:

- Index Out of Bounds exception if I tried to check for an emotion but there was none. I fixed this with if statements, but it took a while to get it working properly
- The emotions won’t work; the program reads it as just another line of dialogue. I’m currently debugging to try to fix this, and will be continuing this next hour

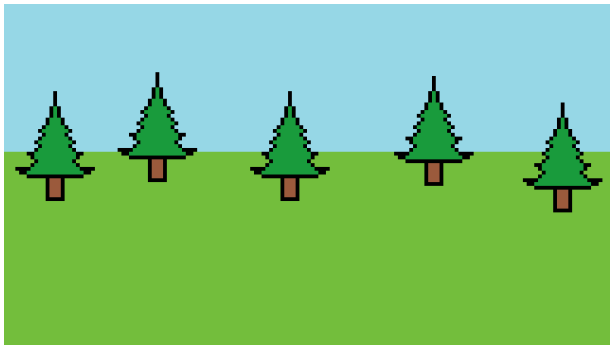
Hour 16:

I realized that the reason my characters' emotions weren't working is because I had coded what should happen in the case of emotions, but I put that in a function that only got called if the text was one of the characters' names–nothing more, and nothing less. I fixed this, and moved on to a bug where the berry counter only implements after the scene is changed.

…The berry counter bug turned out to just be because of the fact that I had started adding or removing values to the counter manually, rather than using the function I had already created to do that. Oops. Anyways, I got that working, then moved on to making it so that the rabbit can only be fed if the player has enough berries. Eventually, I managed to implement this, and also fixed a bug that kept giving players berries infinitely in the first level.

Hour 17:

- Updated the NextTextBoxButton to be disabled when a panel pops up, and then be re-enabled once the panel is closed, which took a ridiculous amount of time since I had to manually add code to each of the panel scripts since I only just remembered inheritances exist, and it would take too long to change everything now



This pixel art drawing of a forest, which I will be using as one of my backgrounds, took me approximately 10 minutes to draw.

This dark forest, which is another one of my backgrounds, has taken me approximately 20 minutes to draw so far.

The rest of the image took me approximately 10 more minutes to draw.

After drawing these, I added the first forest background to the dialogue scenes. After a bit more work, I was able to get the background image to change depending on what was in the text box in the text box array (similar to how I made the character images change). However, I'm starting to realize that it might be easier to use an array to store all of the images and such, and then iterate through the array, so I will be changing my code to do this.

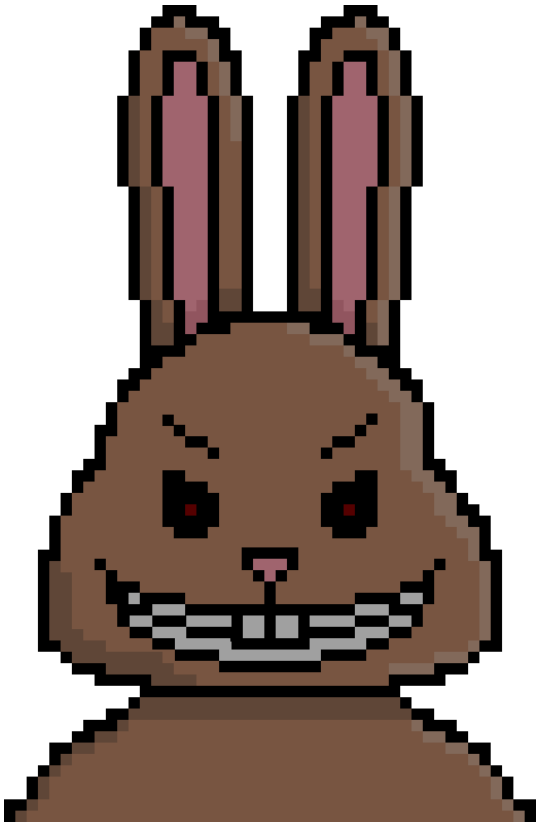
Hour 18:
I started making an array for the background names and sprites so I could make the program more efficient, but after a while, I realized that a dictionary might be better for this, so I switched to using a dictionary. I managed to get this to work, so I will be using the same structure to change the emotion changing in the dialogue scenes. Afterwards, I spent a while changing the emotion changing to this more efficient method as well, and it finally worked after a lot of debugging.

Hour 19/20:
I added a button to access Level 2 in the map…and then I realized that the scene changing wasn't working properly. So I went back and changed that. I also added checking that the string was long enough before trying to get whether or not the first X letters of a string was equal to X, since otherwise I was sometimes running into Index Out Of Bounds errors.

Afterwards, I added a picture of berries beside the berry counter so players know what the counter is for, and ran into some issues, where I learned about the wonderful world of layering: the berry counter and the image rendered on a weird layer relative to something else, meaning that sometimes they were above things they should have been behind and vice versa. As such,

I fixed the layering of everything in each scene, including the background, canvas, and panels, and created a new canvas for the panels so I could place them at the front so they would render in front of everything. Afterwards, I played around with the placement of the berry image and the berry counter for a bit to find a good spot to put them in the top left corner.

Hour 21:
I'm finally moving on to the interesting part of my game, so I drew an evil rabbit for the bottom left corner of the dialogue box:



This took me approximately 15 minutes to draw (because I'm terrible at drawing faces).

Afterwards, I continued the dialogue scene for Level 2, and finally got to the interesting part: making decisions.

I first started by making the panel that would allow the player to make decisions (the "DecisionPanel"). This involved the panel itself, as well as a button for each option the player can choose from, in this case "Yes" or "No". The panel took a while, as I used elements from the other panels I had made but also changed some parts of the structure from that of the other panels to make it more efficient to work with, so I ran into some bugs, such as IndexOutOfRange errors. I started fixing these bugs, and will be continuing to do so during the next hour.

Hour 22:
This hour, I fixed the DecisionPanel error, and so the DecisionPanel and its buttons work now. However, they don't do anything yet, since they're supposed to take players to the next scene, but I hadn't made that yet, so that's what I did this hour. I worked on making two versions of the scene, one for each decision the player could have taken in the previous scene, and although I finished the framework/dialogue of each, I ran into some bugs, such as the console being flooded with infinite logs, so I need to fix these. Giving the rabbit berries if the text in the text box says to do so also won't work, so I need to fix that as well.

- Giving berries works, but need to fix so that the text that needs to be in the text box for the berries to be given does not show
- The decision panel buttons are giving Index Out Of Range errors again, need to fix those

Hour 23:
I realized that the Index Out Of Range errors are just occurring because I don't actually have a Level 3 yet, so that should be a pretty easy fix.

- There's a bug where the number of levels is being initialized to 0, even though there are more levels than that
- Nevermind, that was just because I was playing only the one scene, and the number of levels gets initialized properly in the Map

I started creating a GameOver scene that occurs when the rabbit asks the player for berries, but they have none left.

- Need to change layering for some of the later scenes (create two Canvases)

Note that I stopped logging what was tracked by HackaTime here, since I started writing more extensive descriptions in my GitHub commits themselves.