CSS 385: Intro to Game Development
Game: Into The Spring
Team: Whiskers & Wonders
Members: Nikita Skiba, Skyla Tran, Cordelia Notbohm, Sydnee Haugen

Development Log

Week 4: Conceptual Prototype

Date: 4/15/2023
Name: Nikita
Hours: 3
Worked on: system design and planning the project in the long term

Date: 4/18/2023
Name: Cordelia
Hours: 2
Worked on: looking into pixel art, trying out drawing a test asset, brainstorming ideas for the game

Date: 4/18/2023
Name: Sydnee
Hours: 2
Worked on: looking into different options for players attacking

Date: 4/18/2023
Name: Skyla
Hours: 2
Worked on: watching youtube videos on grid-based movement and games

Date: 4/19/2023
1) What has been recently completed
   A conceptual prototype for the game was made, and some supporting documentation about our planned design for the game, including some UML documents about how to structure the scripts for the

battle portion of our game. This supporting documentation can be found here: 📘 System Architecture 🔴 System Diagram
The idea is that we will be creating a grid, turn-based battle game with a world map where the goal is to survive all the battles.
A paper prototype was made, with ideas for some of the different screens that players will interact with. The initial development log has been made and shared. This GitHub was shared and a unity project has been made. More brainstorming on the game mechanics has been worked on. The art style has been fleshed out more, we are thinking about having the game be critters in the forest with very simple single-color designs. We are taking inspiration from a board game called Root.

2) What each person is currently working on
All members of the team are working together to brainstorm the concept for the game, the art style, and the game mechanics.

Nikita is working on designing how to structure the scripts for the game. Nikita will also work on creating the GitHub and Unity project.

Skyla is watching videos to learn about the different grid-based movement details, and how to implement our battle grid.

Cordelia is working on creating the development log and supporting the website for the game. Cordelia is also working on learning how to do the world map functionality, where a player moves from one battle to another

Sydnee is also working on supporting the website and is looking into how to do the different player options for attacking

3) What features/ideas on the backlog are to be done next
- Brainstorming story, art style, and game mechanic ideas
- Watching videos and learning more about how to implement planned features within Unity
- Creating a GitHub and shared project

- Development log structuring
- Initial website
- Paper prototype

4) Analysis of playtesting (probably as a separate page)
No playtests have been done yet

5) Obstacles that are blocking development
Not yet having a concrete idea of what the game is going to look like and what stories and mechanics we want to include.
Not yet understand how to implement the mechanics we plan to implement
Other classes being busy and tests have made it difficult for some members to have the time to work on the project.

6) Reflection on the game and process. What is working, what is not working.
Creating the Architecture and UML diagrams for the project has helped everyone get on the same page about how we currently plan to tackle the project

Talking over Discord about ideas when they occur to us has helped get an initial game and story idea fleshed out.

Not setting clear expectations about what we are expecting to get done by the next week is leading members to be unsure about what to work on next - in the future should make clear plans on what each member should work on

Our story feels incomplete, right now it is just critters attacking something for no real reason, need to come up with a good objective for the game and a premise for the story

Week 5: Game AI / Digital Prototype-1

Date: 4/24/23, 4/29/23
Name: Nikita
Hours: 5
Worked on: Made Dijkstra's algorithm pathfinding and movement.

Date: 4/26/2023
1) What has been recently completed
> The most recent update is we have refined our story for the game. The premise behind the game will be that bears are the ruler of the forest. During the winter the bears hibernate, and now that spring has come they awaken to find that foxes, bunnies, and other creature have taken over their territory. It is up to the player to fight off those critters and take back the forest.

2) What each person is currently working on
> Nikita is working on utility functions that will be helpful for all of the digital prototypes, primarily raycasting functions that will make mouse controls easy to program. He is also working on using Dijkstra's algorithm to generate the number of movements need to get to a title on the battle map.
>
> Skyla is working on the digital prototype for player movement. This will use the Drijktra algorithm functionality that Mykyta worked on to allow a character to choose a location to move to, and then move from tile to tile till it reaches the destination.
>
> Cordelia is working on the digital prototype for the world map, and having a character be able to click on a new level and move to that level smoothly. Having the character only be able to move to levels that are adjacent and closer to the finishing position.
>
> Sydnee is working on the digital prototype for players attacking during the battle. This will involve clicking a character to select which character should attack, and then clicking a

character to select which character should be attacked. There will then be some indication of how much damage was done.

3) What features/ideas on the backlog are to be done next
- Raycasting functions
- Driskra's algorithm for calculating the distance
- Collecting an array of tiles required to get to a location
- Moving through all of the tiles to get from one tile to another
- Making a graph to represent a world map
- Script for the player to move from one node in the graph to another smoothly
- Character health
- Character attacking
- WebGL Build that has all digital prototypes available to look at

4) Analysis of playtesting (probably as a separate page)
No playtests have been done yet

5) Obstacles that are blocking development
Still unclear how we want to logically develop each of the levels if each level will be a different scene if we want levels to have a random seed, or how to attach the levels to the choices that the player makes in the world map.

Unsure about how to get a player to move from one tile to another and not just jump to the destination title.

Still slightly unsure about who wants to work on which aspects of the project

6) Reflection on the game and process. What is working, what is not working.
Again, in terms of our process, discord is working as a good communication tool, and hopeful GitHub should be a good way to share the project - though have yet to develop much to test that

The story feels like it is working a lot better now, there is a clear objective and a premise for the game, that fits in with the theme of spring

In terms of our process it has been hard to get the development log filled out with everyone - need to come up with a plan or habit that will make logging our progress easier.

Without seeing the prototypes it is hard to know what about the game mechanics are not working well - so all is good there for now.

Date: 4/26/23
Name: Cordelia
Hours: 4
Worked on: setting up the graph for the world map, and the script for player movement.

Date: 4/27/23, 04/28/23
Name: Skyla
Hours: 5
Worked on: (27) reading through Nikita's scripts to help implement player movement, setting up the movement scene, and starting scripts. (28) debugging, finished the player movement scene and scripts

Date: 4/27/23, 4/28/23
Name: Sydnee
Hours: 5
Worked on: (27) Started the digital prototypes for player attacking, (28) finished the player attacking prototypes

Week 6: Digital Prototype-2

Date: 5/1/2023
Name: Cordelia

Hours: 1
Worked on: setting up the initial game website and prototype build

Date: 5/2/2023
Name: Skyla
Hours: 1
Worked on: looking at assets!

Date: 5/2/2023
Name: Mykyta
Hours: 5
Worked on: tried to refactor the code from the prototype into a single project

Date: 5/3/2023
1) what has been recently completed
      All three of the digital prototypes were completed, as described
      in last week's TODO list.
      The initial game website was created.
      Some research has been done as to what assets we might want to
      use in the game
      We have attempted to merge the movement and attacking scripts
      together into one prototype, and to refactor the code - still a
      work in progress.

2) what each person is currently working on
      Nikita is going to continue to work on combining the movement and
      attacking scripts/prototype into one unified scene and set of
      scripts. Nikita is going to work on the turn system and setting
      up the enemy AI controllers system.

      Skyla is going to work on animations, and learning how to use
      Unity's animator functions so that movements and attacks lead to
      animations.

      Cordelia is going to work on creating a playtesting script and
      forms for people to fill out when playing our game. She will also

work on learning about GitHub pages and fleshing out the site. She will work on the tutorial box systems.

Sydnee is also going to work on animations, and learning how to use Unity's animator functions so that movements and attacks lead to animations.

3) What features/ideas on the backlog are to be done next
- Research and look for assets we may want to use in the game
- Combine all the player scripts into one script
- Add in basic enemy AI
- Implement a turn system (controllers)
- Implementing actors (what the controllers can control)
- Work on defining and implementing different player actions: attacks, items, potions, and whatnot
- Work on adding animations to the player characters
- Adding terrain to the map
- Tutorial boxes
- Add menuing for when a player selects a path on the world map (later - beta thing probably)
- Add a duel camera system that will show the battle map once a player selects a battle to fight in (later - beta thing probably)

4) Analysis of playtesting (probably as a separate page)
No playtesting has been done yet, but we are starting to generate ideas for people we can ask to playtest: classes we are in, classes we are grading, friends from other classes, club discords, etc.

5) Obstacles that are blocking development
Unsure about the best way to organize and design the game. The best way to implement different features (how to do actions and controllers and what should be actions and controllers)

6) Reflection on the game and process. What is working, what is not working.

The clearer objectives for each member of the team have made it much easier for members to make further progress.

Messaging in the discord, whenever someone is struggling with some unity issue and needs help, has made it very easy to tackle obstacles we encountered in the digital prototypes.

The movement is on point and feels very natural. Feels fun and will be easy to expand and use for the alpha playtest.

Currently, the rounds and moving between different actors need work and are not working properly.

Date: 5/6/2023
Name: Cordelia
Hours: 7
Worked on: setting up the tutorial boxes. Adding Round information text. Adding attack actions

Date: 5/6/23, 5/7/23
Name: Sydnee
Hours: 5
Worked on: (6) look at how to use assets to make a battle map
(7) build the battle map

Date: 5/7/23
Name: Skyla
Hours: 8
Worked on: literally fighting the unity animator and trying to code the animations into the different actions

Week 7: Alpha Playtest

Date: 5/6/2023, 5/7/2023
Name: Nikita

Hours: 8
Worked on: (6) Refactoring the code base and working on the foundation of the game's systems. (7) Combining changes of our group members.

Date: 5/8/2023, 5/9/2023
Name: Cordelia
Hours: 6
Worked on: (8) added a theme to the website and started working on adding sections to the site. Built the game. (9) worked more on the website and added different navigation elements so that everything can be on its own page.

Date: 5/10/23
1) what has been recently completed
> The alpha version of the game has been released. A fully functioning turn and multiplayer system is in place (albeit with some bugs) A skeleton of the website structure is in place. Animations have been added, and assets integrated. World maps were created.

2) what each person is currently working on
> Nikita is going to work on the enemy AI and the end turn button.
>
> Skyla is going to work on animations and adding new assets to the project.
>
> Cordelia is going to continue to flesh out the site and work on generating a playtesting report for the beta version.
>
> Sydnee is also going to create more battle maps.

3) what features/ideas on the backlog are to be done next
- begin the enemy AI
- Complete some more battle maps (and work on aligning them to the theme
- Add menuing for when a player selects a path on the world map

- Add a duel camera system that will show the battle map once a player selects a battle to fight in
- Add in more characters and their animations
- Fill in the info box text
- Add an end-turn button
- Add a switch selection button
- Fill out the first playtesting report
- Stretch goal: maybe a simple inventory system

4) Analysis of playtesting (probably as a separate page)

We plan to integrate the feedback from the last class, as well as generate some feedback from other testers over the weekend. Our alpha playtesting report will be available here when completed: https://wolflegend523.github.io/CSS385_GameDocuments/alphatests/

5) Obstacles that are blocking development

The 430 Exam we have coming up is taking a lot of our time :(

The animator in Unity is very hard to work with

Not sure what the playtest reports should look like - will look at the past websites to figure that out

6) Reflection on the game and process. What is working, what is not working.

The animations for the game are looking smooth and people are liking them

Not being able to end your turn or select a new character after clicking them makes players frustrated, should add those features

Currently is hard for people to tell which characters can take their turn at any given time

Date: 5/11/2023, 5/12/2023
Name: Nikita
Hours: 7

Worked on: (11) Refactoring the turn-based code. (12) Finished refactoring code.

Date: 5/12/2023
Name: Cordelia
Hours: 4
Worked on: finalized the structure of all the pages on the website, and learned how to add photos, videos, and pdfs for when we are ready to add elements to the site

Date: 5/13/2023, 5/14/2023
Name: Skyla
Hours: 5
Worked on: more animations and sprites, trying to make them interact with the game map and actually play correctly

Date: 5/13/2023, 5/14/2023
Name: Nikita
Hours: 10
Worked on: (13) Character stats and finishing up the character actions like attacking and moving. (14) The AI. Making a cost calculation system that calculates the best move based on multiple choices.

Date: 5/14/2023
Name: Cordelia
Hours: 2.5
Worked on: made a google forms for outside playtesting. Finalized the Alpha playtest report. Worked on the references page of the website.

Date: 5/14/23,
Name: Sydnee
Hours: 4
Worked on: figured out what the map is going to look like and start to make the map

Date: 5/15/2023
Name: Nikita
Hours: 2

Worked on: Building and polishing up the beta.

Week 8: Beta Playtest

Date: 5/16/2023, 5/17/2023
Name: Cordelia
Hours: 2
Worked on: (16) worked on the beta playtest report. (17) did an outside playtest session with friends and people I know from other classes - will write and add the results to the beta report

Date: 5/17/2023
1) what has been recently completed
> Another playtest with the class was done where we got more feedback. Additionally, an outside playtest was conducted with some of Cordelia's friends to gather additional feedback about our game.

2) what each person is currently working on
> Nikita is probably going to refactor everything so it actually all work together and we have a running game.
>
> Skyla is working on the different screen designs and functionality (main menu, win screen, and lose screen). She will also begin looking at creating the introduction level.
>
> Cordelia is looking at putting together an introduction level based on our previously created level that can utilize the previously created information boxes
>
> Sydnee is working on animations for when damage is taken to provide visual feedback when attacks are done

3) what features/ideas on the backlog are to be done next
> - Fix AI problems
> - More information

- Projectiles
- When you hover over a tile have it show what is happening(attack vs moving)
- Add in the world map
- Add in the start menu and win-lose scenes

4) Analysis of playtesting (probably as a separate page)
    Our beta playtesting report can be seen here:
    https://wolflegend523.github.io/CSS385_GameDocuments/betatests/

5) Obstacles that are blocking development
    The end of the quarter is picking up and everyone has other assignments/jobs to be working on.

6) Reflection on the game and process. What is working, what is not working.
    Despite our addition of information to the game, it is not noticeable enough for players to catch them and understand what is happening. Making the information more prominent and visual is a priority.

Date: 5/17/2023, 5/18/2023
Name: Skyla
Hours: 5
Worked on: (17) fixed animation problems (again), (18) main menu design (using aseprite) and functionality.

Date: 5/19/2023,5/20/2023
Name: Skyla
Hours: 5
Worked on: win and lose screens design (using Aseprite) and functionality & updates, cleaning up development log inserts, postmortem slides contribution

Date: 5/20/2023
Name: Sydnee
Hours: 4
Worked on: Finalize the map design and size.

Date: 5/20/2023
Name: Cordelia
Hours: 1
Worked on: Worked on text for a tutorial level and added some ideas to the postmortem slides

Date: 5/22/2023
Name: Cordelia
Hours: 1
Worked on: Worked on playtesting reports and website descriptions

Date: 5/23/2023
Name: Cordelia
Hours: 5
Worked on: downloading screen recording and video editing software. Learning how to use said software. And beginning work on planning and editing the trailer.

Week 9: Postmortems

Date: 5/23/2023
1) what has been recently completed

2) what each person is currently working on

3) what features/ideas on the backlog are to be done next

4) Analysis of playtesting (probably as a separate page)
    No new playtests have been done, will do a final playtest once
    all the tutorial information is finalized.

5) Obstacles that are blocking development

6) Reflection on the game and process. What is working, what is not working.

Date: 5/27/2023
Name: Cordelia
Hours: 2
Worked on: Conducted final playtest, sent out links to multiple classes, and watched friends play through Discord.

Date: 5/29/2023
Name: Cordelia
Hours: 8
Worked on: Finished up the trailer, added updated screenshots and descriptions to the website, and worked on the game presentation and other documentation.

Week 10: Final Presentations

Date: 5/31/2023
1) what has been recently completed

2) what each person is currently working on

3) what features/ideas on the backlog are to be done next

4) Analysis of playtesting (probably as a separate page)
    Our final playtesting report can be seen here:
    https://wolflegend523.github.io/CSS385_GameDocuments/finaltests/

5) Obstacles that are blocking development

6) Reflection on the game and process. What is working, what is not working.