



Cozy Game...

Design Document

*Bi Wan low, Jessica Harmer,
Nicolette Zorbas, Syed Faiyaz*




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Overview

Game Concept

Genres

The game will consist of 2D fixed environments, designed to be played on a computer and implemented in unity.

The game aims to maintain a relaxing atmosphere with emphasis on comfort and self-care referred to as Comfort Gaming.

Despite this the game will introduce complexity with resource gathering and item management. This combined with the customisable nature of the game aims to create individual environments the player can lose themselves in.

Target Audience

The game is targeted towards a casual game audience, where the player does not need to have extensive knowledge or experience with games and game mechanics. It is also aimed towards players who actively seek out games to alleviate the stress of daily life. This is implemented by pulling the player into a cute and natural world where the tasks and goals are simple, optional and repetitive.

Project Scope

After the duration of the allotted time the game will consist of 2 characters with their own environments with character specific resources. This will be used to contribute to the other character's environment. These will consist of at least 2 interactable items for each character. In addition, the characters will have access to an additional farmland. All contained within a primary environment.

In summary:

- 1 Main environment
- 1 Farm environment
- 2 Characters
- 1 Character environments x 2
- 1 Character created resource x 2
- 3 Production states per character x 2
- 1 Resource collection item x 2 + 1 Wood
- 2 Customisable items x 2 options x 2 characters

Game Components

Gameplay

Game Objectives

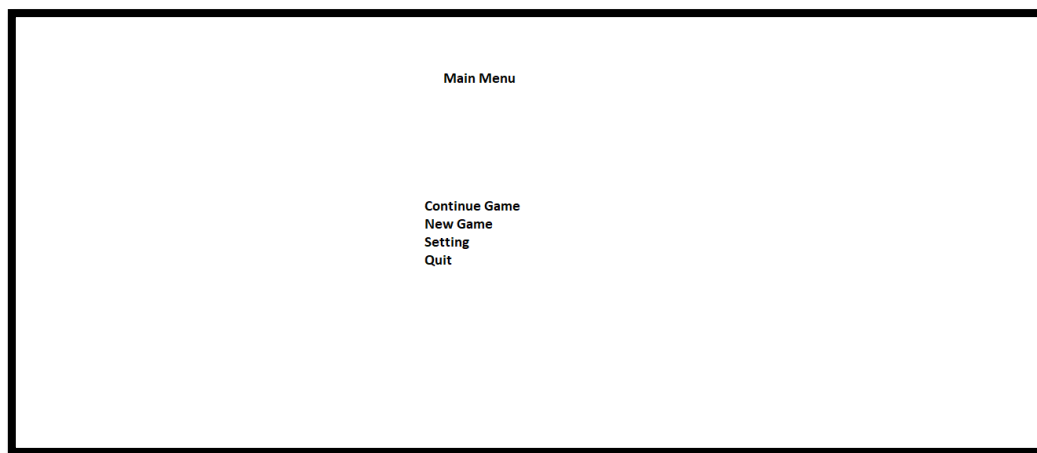
There are no primary objectives or end goals. Secondary goals will consist of upgrading items within the character space.

Game Progression

This consists of unlocking additional characters and item options to gain more resources. The resources will then be used to unlock more characters and items.

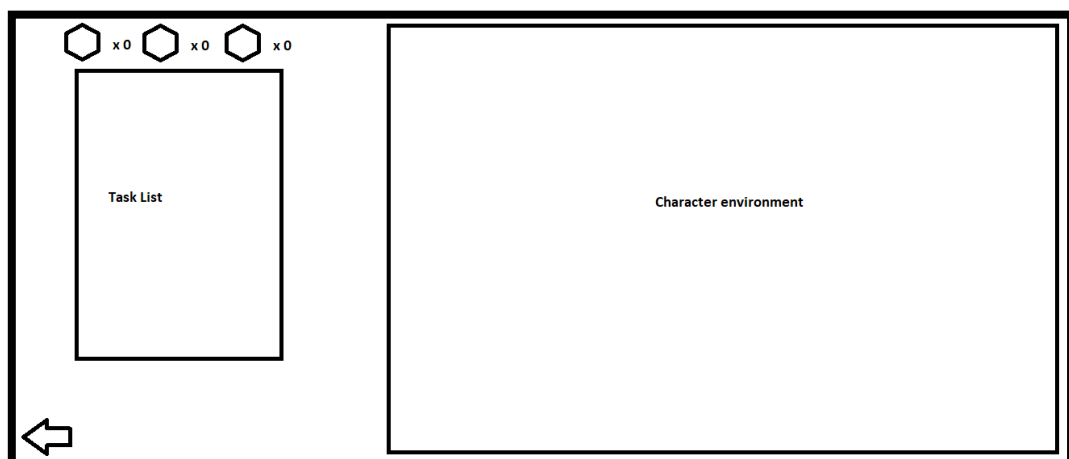
In-game Graphics User Interface (GUI)

The game will open with a main menu that will allow the player to adjust settings, continue a pre-existing game or start a new game.



From there the game will consist of a main screen consisting of a tree with 3 selectable environments.

In the environments there will be a list of resources with the amounts and a screen for the environment with selectable items.



When items are selected arrows will then be used to swap between customisation options for objects within a character space when it is selected.

Mechanics

Rules

Resource Generation Relationship

(Assume 1 per second for sake of understanding as a base rate)

Wood: Standard Rate 1/second

Might increase over time with upgrades. (Eg. each upgrade adds 0.1/second OR 10% increase)

Honey: Lower Standard Rate 0.5/second

Rate increases with each upgrade (eg. +0.2/second OR 20% increase)

Having the flowers in the field/farm would increase rate by 50%

Silk: Lowest Standard Rate 0.25/second

Rate increased with each upgrade (e.g. +0.1/second OR 10% increase (depending on the rate we're after, or see below)

Having mulberry in the field/farm would increase rate by 50%

Alternatively, each rate for upgrades is standardised, and the only thing that changes is the base standard rate (and would work on a percentage model)

In this case:

Wood: 1/second (increases by 10% each upgrade (regardless of where it is made)

Honey: 0.5/second (increases by 20% each upgrade in the Beehive)

Silk: 0.25/second (increases by 20% each upgrade in the Silkworm Den) (the 10% from above would be if we wanted the increase to be slower (and if using integers))

Both the Honey and Silk increase by 50% when a plot in the farm/field is filled with their chosen plant, so the Honey production could be doubled if both plots were filled with flowers (50% + 50%)

I imagine the increases would be additive rather than compounded(?) (We add percentages rather than using a percentage on the numbers that have already got a percentage applied) (Eg. $100 + 50\%$ (of 100) = 150, then if another percentage was applied, it would be taken from the base ($100 + 50\% + 10\% = 100 + 50 + 10 = 160$)). I hope this is understandable. However, if the opposite is easier, then that's fine too.

Instead, it could be entirely integer based, where the value is increased by set numbers, but I felt a percentage might be easier to work with.

As for any interactions between the characters, I'm not sure how applicable this is, especially if it changes based on where the character appears each time you load it, so I feel we can at least start with this.

Player Interactions

Player will be able to click between environments. Select items to upgrade or plots to plant via arrows next to said objects. Click on the resource crates to collect resources.

Game Elements

World Narrative

You are an omniscient being overlooking a tree and it's inhabitants.

Characters

List of characters that will be implemented for the game. (Including concept art)

Bee

Silkworm

Locations

Areas that will be implemented for the game. (Including concept art)

Tree

Farm

Beehive

Leaf pile

Assets

2D Models

List of 2D Models we will aim to have completed for the game.

- Main Tree environment
 - Hive (Interactable)
 - With leaves and sticks (Interaction)
 - Plots (Interactable)
 - Resource Images x 3
- Farm land
 - Plots (Interactable) x 2 characters
 - Different Plot types x 2 characters
 - Character in farmland (Animation) and Visual change (outfits) x 2 characters
- Hive environment
 - Bee (Animation)
 - Idle Animation
 - Working Animation
 - Sleeping Animation
 - Walk Cycle Animation
 - Table and chair
 - Bed
 - Wax Frame (Animation)
- Silkworm environment
 - Silkworm (Animation)
 - Idle Animation
 - Working Animation
 - Sleeping Animation
 - Walk Cycle Animation
 - Table and chair
 - Bed
 - Loom (Animation)

Music

List of scenes or menus that will have background music.

- **Main Tree**
Relaxing, happy and simple
- **Farm Music**
Muted, wind, outdoor noise, outdoor atmospheric sounds and bird noises
- **Bee Environment**
Bustling noise, primary instrument, fast
- **Silkworm Environment**
Softer, calmer and slower

Sound Effects

List of sound effects that will be implemented and where.

- **Environment switch sound – Arrow click between environments**
Short click, punch
- **Interaction with item for sound – Click on item to interact with**
Bell, light
- **Upgrade sound – When the item is upgrade**
Celebratory, Cheery
- **Character movement sound – When character is moving x 2**
Bee - buzzing
Silkworm – slide
- **Character resource noise – While the character is developing their resource x 2**
Bee - Humming, softer buzzing
Silkworm – Loom running
- **Character farm noise – While the character is in the garden x 2**
Bee – Watering sounds
Silkworm – Digging, dirt shuffling

Game Prototyping

The Team

Bi Wan Low (101814341): Lead Programmer/Producer

Primarily responsible for implementing mechanics and interface between the art animation and sound. Also responsible for creating and reviewing game documentation and ensuring that the timeline is being adhered to.

Jessica Harmer (103060612): Game Designer/ Environment Designer

Primarily responsible for outlining the rules of the game and what the final product will consist of. Also responsible sourcing and creating environment and background art assets.

Nicolette Zorbas (102614665): Character Designer/Animator

Primarily responsible for creating character assets. Also responsible for animation and leading implementation of character assets.

Syed Faiyaz(Raad) (102614665): Audio Designer/

Primarily responsible for sourcing music and sound effect assets. Also responsible for implementing the art, sound and animation in Unity.

Task List

Environment Build

Main environment.

- Tree
- Farm plot
- Bee environment
- Silkworm environment

Game UI

The design & incorporation of the task-list & menus.

- Ui display
- Tasks listed
- Options & Menu Screen

Character Design

The tasks involved in the character design & animation.

- Character models (Bee & Silkworm)
- Walk cycle
- Object interaction animation

Sound Design

The basic sounds required for the game.

- Background music
- Task done (partial and full)
- Appliance noises
- Homeowner: Footsteps, expression noise
- Basic click/select

Timeline

Week	Bi Wan	Jess	Nic	Raad
6	Reformat Design Document	Redesign gameplay	Redesign game aesthetic	Think of game ideas
7	2D environment development	Outline key game elements	Outline key art assets	Outline Sound design
8	Skeleton of game scene changes and interaction buttons	Environment creation	Outline game/element interaction	Start accumulating Sound assets
9	Implement scene	Environment creation	Asset animation and creation	Implement sound assets
10	Playtesting/Bug-Fixing	"Environment Build/2D asset support, Playtest"	Asset animation and creation	"Input final environmental features/designs, Playtest"
11	Playtesting/Bug-Fixing	"Finalise asset implementation, Playtest/Bug-Fixing"	"Continue animations, Playtest"	"Finalise asset implementation, Playtest"
12	Playtesting/Bug-Fixing	Playtesting/Bug-Fixing	"Finalise asset implementation, Playtest"	Playtesting/Bug-Fixing
13	Playtesting/Bug-Fixing	Playtesting/Bug-Fixing	Playtesting/Bug-Fixing	Playtesting/Bug-Fixing

Further Development

Reflection

Unfortunately, the project was unable to be completed to the state the team had envisioned. This was caused by the following issues:

- In the initial stages there was no clear leadership for project direction.
- The project itself was ambitious and over complicated for the time available.
- The team was not fully engaged with the project resulting in communication issues.
- The project was then changed to be a simpler game and the group structure was changed in terms of responsibilities and roles.
- Despite this due to the time constraints and health issues the group was unable to produce the desired outcome.

Future Implementation

These will only be implemented if all previous tasks are included, and all parties involved in its development are able to implement these changes safely.

Features

- Show user feedback when selecting items to upgrade.
- Lock upgraded items so it doesn't revert back.
- Implement unlock conditions for silkworm environment and resource.
- Implement farm resource interaction.
- Movement of creatures on screen.
- Change more items within each environment.

Assets

- Silkworm animation
- Silkworm environment
- Implement of UI sounds
- Implementation of on click upgrades
- Final draft of the title screen

Appendix

GitHub Link - <https://github.com/B1-347/DGPL-GameCreation>