

Heads 'N' Tails

Level Design

Document

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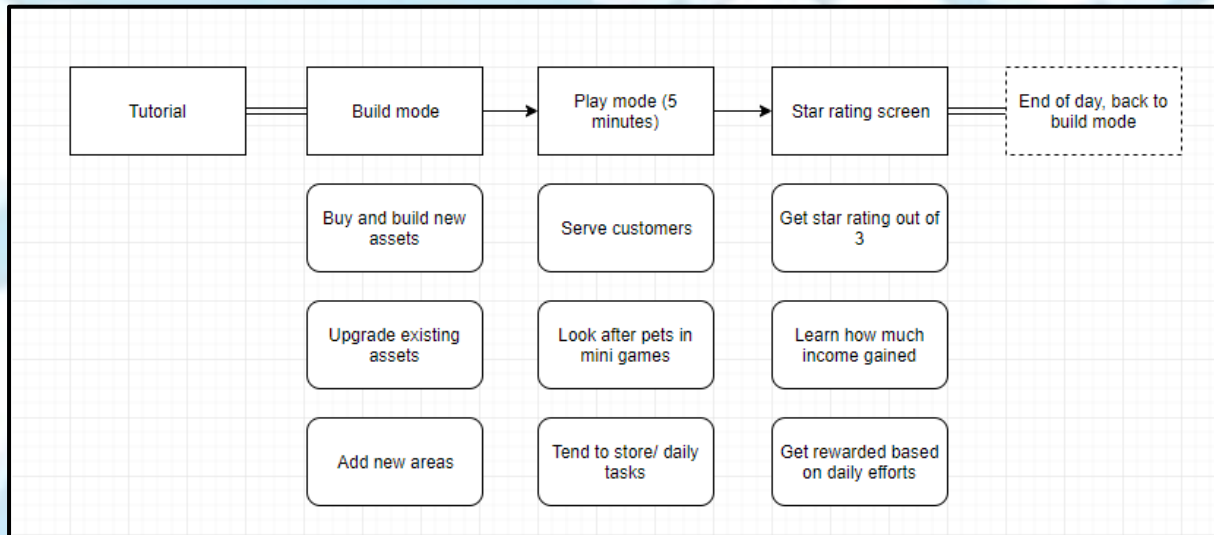
BAGD-0619-003

XB3001 Games Proposal

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Gameplay and Mechanics

Gameplay loop and progression



The gameplay loop will begin with the tutorial, which will guide the players through the first day. Each day consists of the primary gameplay loop, starting the player in build mode, where they can buy, build or upgrade assets or add new areas. When ready, the player will click the 'tick' to start the working day and enter play mode. Here, they will serve customers, look after animals through Quick Time Events, tend to the store and complete daily tasks in an overwhelming 3 minutes of gameplay.

After the 3 minutes, the player will see an overlaid end of day overview screen, which will give the players a star rating out of 3 (based on their daily performance), tell the player how much income they have earned and give the players rewards based on their efforts. From this screen, the day will end, and the player will restart the gameplay loop by returning to build mode, in order to start preparing their store for the next day.

Game States

| SUCCESS VS FAILURE |
|---|
| CURRENCY AMOUNTS/ ECONOMY Completing tasks and deal with customer requests to hit set amounts of currency per day. |
| RATING SYSTEM Players given a daily star rating based on income, timing and customer satisfaction. |
| UPGRADES Earnings can be used on store upgrades to generate more income and better ratings. |
| WIN STATE The more income generated and the better the ratings per day, the more successful the company becomes and the less debt the shop will be in. |
| LOSE STATE Constant poor ratings, mixed with low or negative income will result in warnings and shop spacing descope, before triggering the losing state and ending the game. |

Win State

Players will 'win' each of the 3 days by getting a three-star rating through earning the target amount of income (\$100, \$200 and \$300), serving a certain amount of customers (4, 6 and 8) and cleaning/feeding a certain amount of pets per day (1, 2 and 3).

Lose State

The lose state covers not caring for the pets, as they will be taken away from the player through the Animal Welfare Officer. On top of this, if players do not complete the daily tasks, they will receive less stars and thus, receive less money to spend on upgrades and stock as a reward.

Interactions

Within the game the player will be able to interact with the environment and pickup objects that they can interact with, as well as interact with AI. The objects that the player can interact will be clearly visible by a post processing material that shows when the user is in a close enough proximity to the item. The interactions will be led by the AI as they will be demanding for items / interactions.

The interaction system will be run of a blueprint interface and a line trace that looks for objects that has the interface and will only register if this is a match.

| Animals | Props | Environment |
|-----------------------------|---|-------------------------|
| All Dogs | Blankets | Shelves |
| All Cat | Pillows | Doors |
| Budgies (cage) | Shampoo | Play pens |
| Rabbit (carry case) | Brushes | Washing / grooming area |
| Snake (carrying deceive) | All Toys | Vets area |
| All Fishes (in plastic bag) | Leads | Till area |
| Hamster (hamster ball) | All foods | Outside space |
| | All beds | Cages |
| | All bowls | Feeding station |
| | Hay and shaving (plus other cage floorings) | |
| | Hamster accessories | |
| | Fish accessories | |
| | Reptile accessories | |
| | Carriers | |
| | Litter boxes | |
| | Carry Cases | |

Tutorial and Help system

The tutorial will run the player through a 'hand held' first day by their boss, who will be instructing the player as a series of pop-ups in the bottom right corner of the screen. Players will be expected to follow instructions, playing through the first 'Play mode' day to learn key skills, before moving into 'Build Mode' to learn about how to add assets and extend their store.



Within the first day, a customer will come into the store and the player will have to get the item which they ask for, where they will be taught about interactions, before caring for the animals through caring stations. At the end of the day, they will be shown the ratings (gaining 3 stars for completion) and will be rewarded. They will then be taught how to build, customise and extend their store, before the final tutorial day being a practice day, featuring the same gameplay style as the core gameplay, except being a little bit slower.



The tutorial will teach the player the key skills which they will require through the rest of the game, such as how to build, how to balance their currency income, which areas they can and cannot build in, how to serve customers and care for animals etc. The tutorial will be very minimal and will only provide the key information in a clear and concise manner to let players begin playing properly.

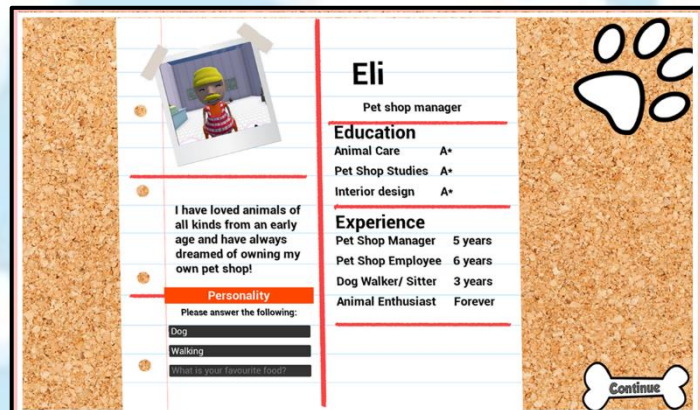
Story and Narrative

Overview

Heads 'N' Tails is a declining pet store, in desperate need of some help. After losing a lot of money and going into debt, the company bosses decided to completely clear the store floor and recruit a new manager, in the hopes of turning the shop around and becoming a profitable company.

Character backstory

The main character is a successful manager of previous businesses of the same nature as this pet store and has approached by Heads 'N' tails to become the new manager. The player can choose whether to be male or female and due to an impressive experienced background, has full support to arrange the pet shop however they wish, buying and upgrade preferred items and within time and profits, the ability extend the shop in any way they wish, which will be earned by the player.



World narrative

In terms of the world narrative, this will be provided as soon as the player begins the game through the main menu visuals, however, when entering the game, the player will be able to see the world narrative first-hand through the store, customers, assets and animal visuals and through the SFX.

NPC backstory

The NPCs in the game include the boss character, animals and customers.

The boss is a wealthy and trusting business person who cares for their companies and assets but will not hesitate to change things up if things are going wrong. They will give the player character all the backing they need and give them full freedom to do as they wish with the store.

The customers will range in appearance, however, they will all be entering the store in the hopes to get the items they require for their pets or to get a new pet for their home. They will all feature an item and emotes over their heads to give feedback to the player as to how they are feeling and will leave in frustration if the player does not interact with them after a certain amount of time.

The animals are all lovable and just want their basic needs to be acknowledged by the player, such as being fed, cleaned and if ill, taken to the vet station.

Story, narrative and gameplay

Throughout the course of the game, the player will be in contact with the boss, who will give the opening tutorial and give tips to guide the player through the course of the game, which will deliver useful information and aspects of the narrative to the player.

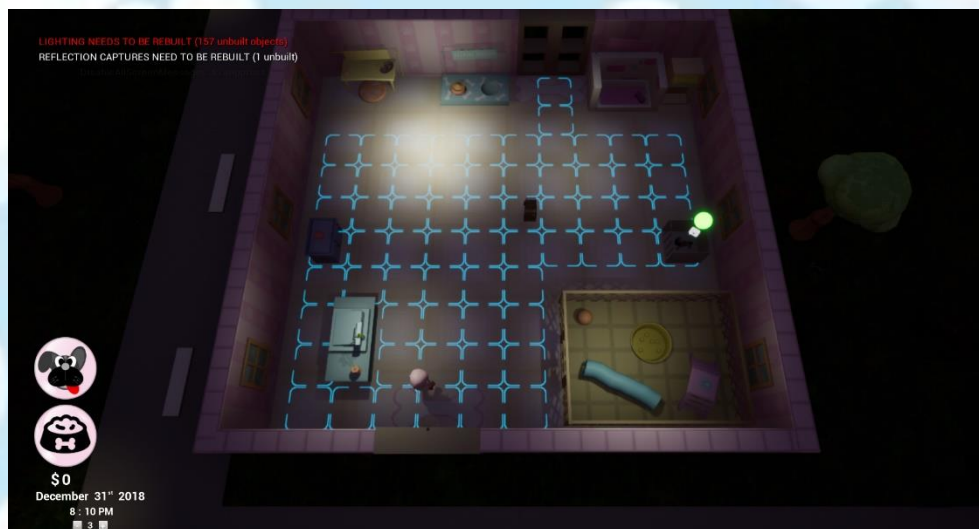
LEVEL DESIGN

Spacing

Placement and boundaries

Any item can be placed on any part of the grid, as long as there is not another item within that square or the square is blocked for a design reason, e.g. in front of the doors or by the till, as this could cause issues with customers being able to enter the store, leading to the playability of the game being hindered, which could lead players to becoming frustrated when they receive a lower star rating, so to counteract this, the door will be placed in a set position, with the squares in front of the door being blocked for player interaction.

This gives player's choice and allows them to customise the store around their own preferences, which in turn will allow the players to feel more immersed and connected to their store, as the design will have a more personalised atmosphere, leading to more play time, higher aims with the rating system and a more fun play experience.



Starting grid size and extensions

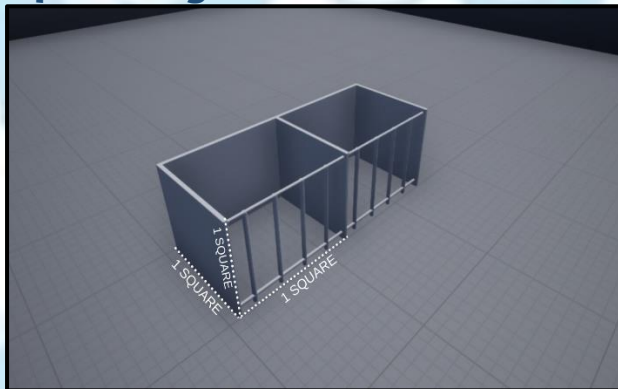
To start with, the grid will be 10 squares by 10 squares. As a square is 128cm x 128cm, this translates to 1,280cm by 1,280cm. However, when the player has earned enough income, they will be able to add new areas (new pieces of grid) onto the original grid, in order to progress the size of the store, which will lead to more customers, more income and more upgrades. This type of progression allows players to go at their own pace, gives the players a personal goal to reach if they want a particular section upgrade and as the players need to earn a certain amount before they can buy the upgrades, this progression system monitors the progress and only allows players to make upgrades once they are skilled enough to take on more responsibilities, as if they are not skilled enough, they will not have enough income to add to the store.

How to extend the space

Players can click on the house icon outside of the grid, which will have a currency amount placed underneath this icon. This is the amount required for the player to build an extension onto the space and, if they have the correct amount of currency, will remove the current walls in that sections of the store and build new ones, adding a new section of the grid onto the store to build in.

Scaling

Square design scale



This image portrays the size of an animal cage on the grid. This cage would be for a pet and measures 1x1 on the grid system. In order to fit a pet inside it, the pet asset has been scaled to be smaller than the cage, as can be seen on the scaling table below. This is important, as the scaling table was only possible with the perspective of how big a 1x1 square was, so that the other assets could be placed in around it and appear correct.

Asset scale list

| | A | B | C |
|----|------------------------------|-------------------------------|--------------------------------|
| 1 | Item | Real world Scale (LxWxH) (cm) | In Game Scale (LxWxH) (sq) |
| 2 | Character | | |
| 3 | Dog | 91cm x 58cm x 66cm | 1/2 x 1/4 sq |
| 4 | Cat | 60cm x 20cm x 30cm | 1/2 x 1/4 sq |
| 5 | Rabbit | 40cm x 25cm x 40cm | 1/3 x 1/3 sq |
| 6 | Snake | 200cm x 10cm x 10cm | 2 sq x 1/3 sq |
| 7 | Fish | 10cm x 5cm x 5cm | 1/3 x 1/4 sq |
| 8 | Hamster | 9cm x 6cm x 6cm | 1/4 x 1/4 sq |
| 9 | Customers | 46.5cm x 36 cm x 174cm | 1 x 1 sq |
| 10 | Staff | 46.5cm x 36 cm x 174cm | 1 x 1 sq |
| 11 | 2D pop up image of boss | N/A | N/A |
| 12 | Clothing options | N/A | N/A |
| 13 | Bird (Budgies) | 20cm x 10cm x 20cm | 1/3 x 1/4 x 1/3 sq |
| 14 | | | |
| 15 | Prop | | |
| 16 | Blankets | 28 x 22 x 8 cm (130 x150 cm) | 1/3 x 1/3 sq |
| 17 | Pillows | 70 x 45 x 8 cm | 1/2 x 1/3 sq |
| 18 | Shampoo | 5 x 5 x 22cm | 1/4 x 1/4 x 1/2 sq |
| 19 | Brushes | 26 x 4 x 4 cm | 1/3 x 1/3 sq |
| 20 | Toys (Tennis balls) | 6 x 6 x 6 cm | 1/4 sq |
| 21 | Teddy bear | 20.8cm x 9.8 x 25.2 cm | 1/3 sq |
| 22 | Leads | 19.6 x 3.7 x 19.8 cm | 1/3 sq |
| 23 | Fish food cartons | 10.4 x 10.4 x 0.7 cm | 1/4 sq |
| 24 | Cat, dog, rabbit food bags | 37 x 15 x 76 cm | 1/2 sq |
| 25 | Beds | 112 x 69.4 x 9 cm | 1 sq |
| 26 | Bowls | 15 x 15 x 10 cm | 1/4 sq |
| 27 | Young milk and formula | 20.8 x 15.6 x 13.6 cm | 1/4 sq |
| 28 | Hay and shavings | 52 x 48 x 33 cm | 1/2 sq |
| 29 | Hamster balls | 18 x 18 x 18 cm | 1/3 sq |
| 30 | Carriers | 32 x 32 x 47.4cm | 1 sq |
| 31 | Litter boxes | 48.5 x 38 x 30.5 cm | 1/2 sq |
| 32 | Shelves | 183 cm x 17.2 cm x 63.3 cm | 3 x 1 sq |
| 33 | Benches | 63 x 146 x 88 cm | 2 sq x 1 sq |
| 34 | Tables | 120 cm x 60 cm x 75 cm | 1 x 1 sq |
| 35 | Feeding station biscuit | 3cm x 1cm x 1cm | 1/4 x 1/4 sq |
| 36 | Fish tanks | 60 x 30 x 33.5 cm | 1 x 1/2 |
| 37 | Magazines | 29.7cm x 21cm | 1/3 sq |
| 38 | Hamster wheel | 17.5 x 17.5 x 17.5 cm | 1/3 x 1/3 sq |
| 39 | | | |
| 40 | Environment | | |
| 41 | AREAS | | |
| 42 | Play area (Dog, cat, rabbit) | 548cm x 365cm (Each animal) | 4 sq x 3 sq (Each play area) |
| 43 | Animals for sale: Cages | 61 x 46 x 48 cm | 1 sq x 1 sq (Snake: 2sq x 1sq) |
| 44 | Entrance (doors) | 76cm x 20cm x 200cm | 1 x 1/2 x 2sq |
| 45 | Waiting area | 275cm x 182cm | 3 sq x 2 sq |
| 46 | Shower area | 125cm x 58cm x 130cm | 1 sq x 1 sq (Per shower) |
| 47 | Storage | 152 cm x 304cm | 2sq x 2 sq |
| 48 | Animal nap area (Beds etc) | 61 x 46 x 48 cm | 1 sq x 1 sq (Per animal) |
| 49 | Outdoor space/ field | N/A | 6 sq x 6 sq |
| 50 | Bird cages | 41cm x 37cm x 118cm | 1/2 x 1/2 x 1 sq |
| 51 | | | |
| 52 | STALLS/ STATIONS | | |
| 53 | Clothing stall | N/A | 4sq x 4 sq |
| 54 | Treat/ feeding/ biscuit bar | N/A (prototype measures) | 2sq x 1 sq |
| 55 | Clean-up/ grooming station | N/A | 3sq x 3sq (To fit showers in) |
| 56 | Tutoring station | N/A | 2 sq x 2sq |
| 57 | Register/ checkout | N/A (prototype measures) | 2sq x 1sq |
| 58 | Holding pens per animal | 61 x 46 x 48 cm | 1 sq x 1 sq |

The table on the left shows the real-world and in game scale size of each asset. After researching the size of each item in the real world, this scale was then transferred into approximate square sizes to the size of 1 square (128cm x 128cm) and took the scale of all the other assets into consideration. The reason for this is that if one asset seemed too large in the game compared to real world scale and compared to the other items in the game, this would look visually incorrect and would require further scaling in engine, which could cause issues with texturing at a later stage.

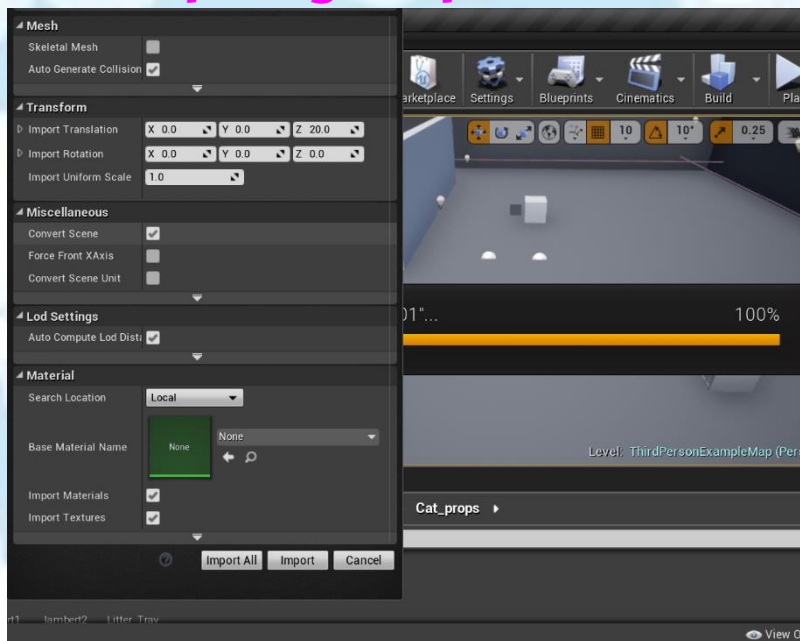
Asset functionality considerations

In this game, some pieces can fit inside other pieces, for example, the dog asset needs to be able to fit inside the cage. In order to achieve this, the pieces which need to be placed into others, so have been scaled down to less than a square, in order to fit into the other asset and in order to keep with real world scaling, for example, anything which needs to be placed on a shelf, in a cage, in a tank etc. would not be bigger than the shelf itself. The pieces which take this into consideration include:

- **All animals:** All animals need to be smaller than the cages, carry cases or tanks for them to be able to fit inside.
- **Store:** The store needs to be big enough to hold assets and for the player and customers to be able to wander around freely and have enough space to customise the store and it feel personal.

These elements will be placed in as one piece, with the chosen pet being added to the store in a cage and the sellable assets being placed in on a shelf. This is due to the cages and shelves always requiring other pieces to be fully functional, as placing a dog kennel in the game without any animal inside it will cause it to be useless and a waste of space.

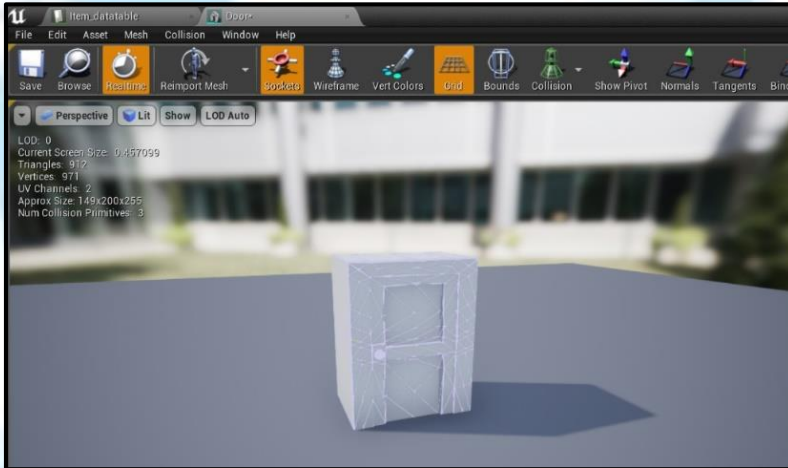
Asset importing and placement



Importing assets

Whilst importing the assets from the art team, it must be ensured that the translation and the rotation will be correct when implementing the assets into the grid system. If they are clipping through the floor or the wrong size when importing, this will become problematic (e.g. cause issues such as not allowing the player to place the asset into the grid), which will then need time to reimport these assets with updated translation to resolve.

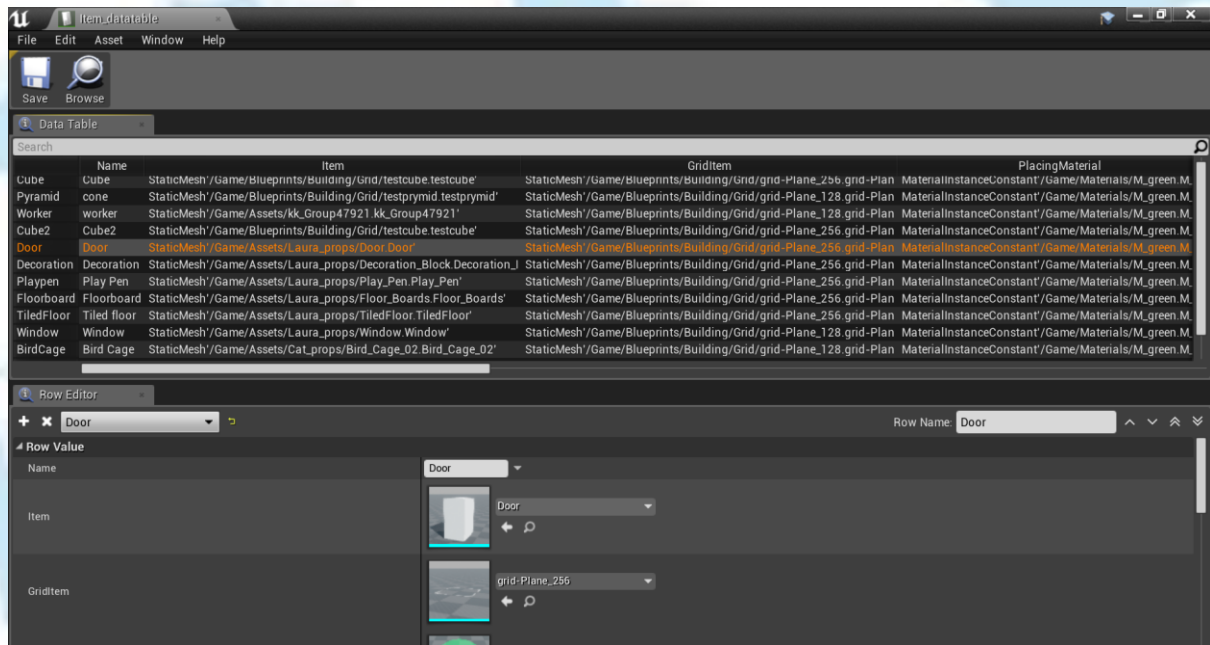
Collision



Once the assets are in, they will need their collision to be updated, otherwise the player will be able to walk through the asset or be blocked in the wrong way by the collision, which will cause the player to feel frustrated as they feel they should be able to get through certain gaps and into certain areas, which could be blocked by the assets. The collision also

needs to cover the grid system aspects, so that when they are placed in, the asset works as intended, blocking place able objects from being able to be placed inside other assets.

Data table



Any sellable asset which is imported into the project needs to be placed into the datatable. This has been covered more in depth in the mechanics section of this document, however, it is important to ensure all rows are filled in and the place able asset is tested, as on occasion, the offset will require tweaking to make sure the placement and interaction model is correct.

UI and feedback

Important UI elements

Below is a list of all the UI which will be required in the game:

| UI element | Placement on screen | When does it appear? | Purpose of UI |
|--|--|--|--|
| Boss pop up screen | Bottom Right | Sporadically/ when players require them | Gives tips, instructions and updates which players require |
| Task list | Top right of screen | Throughout play mode | Gives players objectives |
| Customer requests | Over customer's head | Whilst customer in shop | Tells player what to find. |
| Progression mood balls and emotes | Over the head of animals and customers | Whilst customers or animals are in the shop | Green to Red progress ball, emotes tells players mood. |
| Day/ time cycle | Bottom left of the screen. | Throughout the game | Timer for how long of day/ night is left to play. |
| Build mode items | Left of the screen | Throughout build mode | Gives players items to place into the grid/ shop |
| Current currency amount | Bottom left of screen, above time and date | Throughout the game | Amount to spend on items/ current earnings. |
| Mini games UI | Centre when zoom into the QTEs | When in game area | Let's players take on tasks |
| Items sub menus | Under selected item | Build mode: Item selected | Manipulate item transform |
| Coloured grid feedback | On item trying to place | Placing item onto grid | Tells if item can be placed |
| Item interaction pop up | Below interacted item | Interacting with item in play mode | Reminds players how to interact with items |
| Upgrade menu | Under build mode menu | In build mode | Lists available upgrades |
| Customer amount | Bottom left, right of time and date | Throughout play mode | Gives feedback to player of how many customers in store |
| Tutorial pop ups | Centre | When player is required to complete a task or learns a new skill | Teaches the player how to complete certain aspects of the game through pop ups |
| End of day star rating UI | Full screen | After 8PM, at the end of the day | To tell the players how many stars they have achieved based on tasks. |

Purpose of the UI

Without it, players may get lost or not know how close they are to achieving their objectives, in which case, they will not get the overwhelming experience which we are aiming for when the time is running out. The UI is also created to give feedback to players, assists players into knowing what they are doing and eases accessibility for the players, so they always know how to play.

The visual elements of the UI give the player visual clues into what is happening, even if they are subtle or not directly pointed out like the mood balls/ progression bars seen in the game world and the interface design gives players visual indications as to how well they are performing, which can add a competitive edge to the players (e.g. time limits, number of customers and using their memories to figure out how close they are to the final goal outlined in the task list).

UI Breakdown

Below is an overview of the UI for each main mode. Below the image is a legend, explaining the different parts of the UI and their purpose in the game.

Build Mode UI



Build mode menu: Left side, provides players with a list of available items to place onto the grid.

Currency amount: Bottom left, provides players with their current financial amount to spend.

Time and date: Bottom left, tells players the time and date, with option to manipulate time speed.

Sub menu on asset: Provides players with the ability to manipulate the transformation of the asset.

Boss UI: Provides instructions and feedback to the player on what to do.

Play Mode UI



Currency: Bottom left, provides players with their current financial amount to spend.

Time and date: Bottom left, tells players the time and date, with an option to manipulate time speed.

Daily tasks: Top right, provides players with a list of daily tasks to perform which will give the player more chance of getting a higher star rating, leading to more income.

Customer icon: Bottom left, shows the number of customers in the store and unserved at any moment.

Star Rating System



Stars/ star rewards: Provides with the number of stars earned, each based on a task list goal.

Daily Earnings: Amount of money player earned that day.

Salary: Player will always get \$50 for each completed day.

Current Amount: Amount of money player now has after all these additions.

Feedback

Feedback interface

The game will use feedback interface features to provide additional details such as pop up dialogue/ messages, currency pop ups when a customer is served and the time to the player. Currently, the game has a rating system at the end of the day, the time and date to let the player know how long is left of the day, messages from the boss and score being portrayed through currency amounts. Later, however, elements such as XP could be added to allow the player to level up in order to unlock certain items.



Momentary feedback stimuli

The player is receiving visual feedback through the UI and through the mood balls/ emotes above the pets and customers, reflecting their mood. Future plans include being able to look at the animal to see what the status of them are visually, without having to look at any progress bars. They will also receive visual feedback when a customer is served through the NPCs animations, emotes and currency amount pop ups. All elements of the UI discussed above portray visual feedback to the player.

In terms of ambient stimuli, the player will be able to hear music throughout the course of the level, however, they will hear a 'pop' and narration of their boss when they require attention and want to give instructions to the player, with sound effects and auditory cues being used in relation to the customer and animal happiness, as well as to point out different elements to the player, such as a 'bell ding' when a customer enters the shop.

Omnipresence

In this aspect, the player can see the whole store if they zoom out, so they will be able to see what all animals are doing and where their stats are, what each customer is doing, what they are requesting and where they are in the shop and all other aspects of the shop. They will also receive updates on their progress through the rating system at the end of each day and receive messages from their boss through messages popping up on the screen.



Feedback responsiveness

Players will be told what the target amount of income is as soon as they start the day through the task list, meaning they have their target for the level. In terms of the gameplay, the player will always be able to monitor the progress bars and mood balls for each animal and customer through the UI above their heads. The UI also shows the players how much they have earned in terms of hitting their target, how long is left of the day (time limit), where they can and cannot build in build mode through the colour system of green (can place a block here) and red (cannot place a block here), which gives fast feedback to the player. The reason for fast, clear feedback is so that the player knows the consequences for their actions immediately, otherwise the player could become frustrated if they are punished for something that happened a while before which they felt they got away with, or seemingly not rewarded for something which they feel they should have been rewarded for.

Mistakes

In build mode, players are shown red, so they cannot build too close to another object or on top of another item/ asset. Players are encouraged, but not forced, to make sure there are pathways for players and customers to walk down. However, doors and areas such as the till are blocked for item placement to ensure the player does not block key areas.

In terms of play mode, if a player makes a mistake or loses a customer, they will have more customers to serve in order to make up the target required. However, the customers are a limited resource, so players must make the most out of each one who enters.

Pacing

Upgrade progression

Upgrades include gaining more of the same item; as the player only begins the game with 1 of each item, expanding the space or adding new areas/ items to the store. These will become available from the beginning of the game, however, the players will be required to use their income in order to purchase these upgrades, meaning the better the player performs, the more rewards they will gain and the more money the player will have to spend on upgrading their store.

Day length

We have determined that a day should last for 3 minutes, as this will be such a short amount of time, that the gameplay will feel overwhelming when attempting to complete all the tasks, as there is a lot to do in such short amount of time. As an estimate, each transaction will take roughly 10 seconds, however, there will be times when this pace cannot be kept, meaning 60 seconds of leeway time is advisable, leaving 2 minutes, or 120 seconds left for the player to serve customers.

With the advised time being 10 seconds per customer over 120 seconds, this means the player should be able to serve approximately 12 customers per day, or complete 12 QTEs per day. This was the basis for setting up the task list goals of serving 4, 6 and 8 customers per day, along with 1, 2 and 3 QTEs.



Mechanic progression

The first mechanic the player will be taught is how to move in play mode. From here, the player will learn about interactions, task lists, QTEs and serving customers, before entering Décor mode and learning how to place items, currency and customise/ build up their store, before getting to try it for themselves in day 2, before the main 3 days in the core gameplay.

Challenges/ player goals

The player will face several challenges in the game including:

- Looking after animals through Quick Time Events (Cleaning, feeding and healing animals).
- Finding items for customers, picking the item up and taking it to the customer.
- Moving around stock in build mode.
- Building up their store in build mode.
- Serving enough customers to gain the high ratings and earn more income.
- Upgrading their store and manage to control it without making it so big it becomes unmanageable.



Item deterioration

Animals will need to be fed and cleaned at least once per day; however, these will be task list items. The player will also need to serve customers, who will only stick around for a certain amount of time before leaving. These are task list items and the mood of the pets will decrease at different rates, determined by real life research of different pet feeding and cleaning frequency.

Item sale progression

Items will be sold on a randomised rate, as the item a customer is coming into the store for is based on an array of random items, meaning this cannot be predicted fully. However, the items which the player will enter the store to buy will always be one the player will have, or had in stock at the beginning of that day, however, players can use restock to get more of this item, as selling the dog and cat will gain the player more money, these items will be less frequently sold than items on the shelves for example.

Progression between sections/ modes

At the end of each day, the players will gain their rating, before the game switching from play mode to build mode to allow the player to use their income to build on a grid. When ready, the player can press the 'tick' button to enter the next play mode day. In terms of the QTEs, interacting with the animals and taking them to different sections of the shop will let players enter the different QTEs.

Making use of all assets

The build mode will feature upgrade deals and random items for the player to buy at a cheaper rate in order to entice players into using their money and buying items which they may not usually purchase. Players must always place down at least one item in order to sell, otherwise the customers who enter the store will not want anything, as there will be no items to sell. If the player attempts to play the game without an item, they will be told that they must place an item from the boss, before continuing to play mode.



Making players progress

As the player earns money from the customers, they can begin buying more items to sell and restock any sold items in the store, in order to make sure they always have enough to sell, in order to achieve their daily goals/ tasks.

At the end of each day, players get money on several categories, with the intention for them to buy more assets, thus, increasing the size and value of their store. At the same time, as the difficulty curve of the tasks rises per day, the players will need to progress their skills with these tasks, learning more techniques as they practice and learning from their mistakes daily.

Economy

Cost of each item

Below is a list of each asset and area which will be in the game with the real-world scale and pricing, in game pricing to buy as the manager of the store and the sell/ rent price for the customers.

| | A | B | C | D | E | F | G |
|----|------------------------------|-------------------------------|--------------------------------|--------------------------------|------------------------|-------------------------|--|
| 1 | Item | Real world Scale (LxWxH) (cm) | In Game Scale (LxWxH) (sq) | Real world Pricing | In game price (to buy) | In game price (to sell) | In game price (customer rent) |
| 2 | Character | | | | | | |
| 3 | Dog | 91cm x 58cm x 66cm | 1/2 x 1/4 sq | £250 | 125 | 125 | N/A |
| 4 | Cat | 60cm x 20cm x 30cm | 1/2 x 1/4 sq | £200 | 100 | 100 | N/A |
| 5 | Rabbit | 40cm x 25cm x 40cm | 1/3 x 1/3 sq | £30 | 15 | 30 | N/A |
| 6 | Snake | 200cm x 10cm x 10cm | 2 sq x 1/3 sq | £30 | 15 | 30 | N/A |
| 7 | Fish | 10cm x 5cm x 5cm | 1/3 x 1/4 sq | £5 | 2.5 | 5 | N/A |
| 8 | Hamster | 9cm x 6cm x 6cm | 1/4 x 1/4 sq | £10 | 5 | 10 | N/A |
| 9 | Customers | 46.5cm x 36 cm x 174cm | 1 x 1 sq | N/A | N/A | N/A | N/A |
| 10 | Staff | 46.5cm x 36 cm x 174cm | 1 x 1 sq | £8 (per hour) | £8 (per hour) | N/A | N/A |
| 11 | 2D pop up image of boss | N/A | N/A | N/A | N/A | N/A | N/A |
| 12 | Clothing options | N/A | N/A | £10-15 | 5-7.50 | 10.00-15.00 | N/A |
| 13 | Bird (Budgies) | 20cm x 10cm x 20cm | 1/3 x 1/4 x 1/3 sq | £10 | 5 | 10 | N/A |
| 14 | | | | | | | |
| 15 | Prop | | | | | | |
| 16 | Blankets | 28 x 22 x 8 cm (130 x150 cm) | 1/3 x 1/3 sq | £12 | 6 | 12 | N/A |
| 17 | Pillows | 70 x 45 x 8 cm | 1/2 x 1/3 sq | £10 | 5 | 10 | N/A |
| 18 | Shampoo | 5 x 5 x 22cm | 1/4 x 1/4 x 1/2 sq | £5 | 2.5 | 5 | N/A |
| 19 | Brushes | 26 x 4 x 4 cm | 1/3 x 1/3 sq | £12 | 6 | 12 | N/A |
| 20 | Toys (Tennis balls) | 6 x 6 x 6 cm | 1/4 sq | £1 | 0.5 | 1 | N/A |
| 21 | Teddy bear | 20.8cm x 9.8 x 25.2 cm | 1/3 sq | £10 | 5 | 10 | N/A |
| 22 | Leads | 19.6 x 3.7 x 19.8 cm | 1/3 sq | £7 | 3.5 | 7 | N/A |
| 23 | Fish food cartons | 10.4 x 10.4 x 0.7 cm | 1/4 sq | £4 | 2 | 4 | N/A |
| 24 | Cat, dog, rabbit food bags | 37 x 15 x 76 cm | 1/2 sq | £10 | 5 | 10 | N/A |
| 25 | Beds | 112 x 69.4 x 9 cm | 1 sq | £20 | 10 | 20 | N/A |
| 26 | Bowls | 15 x 15 x 10 cm | 1/4 sq | £10 | 5 | 10 | N/A |
| 27 | Young milk and formula | 20.8 x 15.6 x 13.6 cm | 1/4 sq | £8 | 4 | 8 | N/A |
| 28 | Hay and shavings | 52 x 48 x 33 cm | 1/2 sq | £8 | 4 | 8 | N/A |
| 29 | Hamster balls | 18 x 18 x 18 cm | 1/3 sq | £6 | 3 | 6 | N/A |
| 30 | Carriers | 32 x 32 x 47.4cm | 1 sq | £25 | 12.5 | 25 | N/A |
| 31 | Litter boxes | 48.5 x 38 x 30.5 cm | 1/2 sq | £12 | 6 | 12 | N/A |
| 32 | Shelves | 183 cm x 17.2 cm x 63.3 cm | 3 x 1 sq | £60 | 45 | N/A | N/A |
| 33 | Benches | 63 x 146 x 88 cm | 2 sq x 1 sq | £70 | 50 | N/A | N/A |
| 34 | Tables | 120 cm x 60 cm x 75 cm | 1 x 1 sq | £40 | 20 | 40 | N/A |
| 35 | Feeding station biscuit | 3cm x 1cm x 1cm | 1/4 x 1/4 sq | £0.50- £1 | 0.25-0.5 | 1 | N/A |
| 36 | Fish tanks | 60 x 30 x 33.5 cm | 1 x 1/2 | £35 | 17.5 | 35 | N/A |
| 37 | Magazines | 29.7cm x 21cm | 1/3 sq | £1 | 0.5 | 1 | N/A |
| 38 | Hamster wheel | 17.5 x 17.5 x 17.5 cm | 1/3 x 1/3 sq | £10 | 5 | 10 | N/A |
| 39 | | | | | | | |
| 40 | Environment | | | | | | |
| 41 | AREAS | | | | | | |
| 42 | Play area (Dog, cat, rabbit) | 548cm x 365cm (Each animal) | 4 sq x 3 sq (Each play area) | N/A (Cost to build area) | N/A | N/A | £20 per day or £13 half day |
| 43 | Animals for sale: Cages | 61 x 46 x 48 cm | 1 sq x 1 sq (Snake: 2sq x 1sq) | N/A (Cost to build area) | N/A | N/A | N/A |
| 44 | Entrance (doors) | 76cm x 20cm x 200cm | 1 x 1/2 x 2sq | N/A (Part of start build area) | N/A | N/A | N/A |
| 45 | Waiting area | 275cm x 182cm | 3 sq x 2 sq | N/A (Cost to build area) | N/A | N/A | 0 |
| 46 | Shower area | 125cm x 58cm x 130cm | 1 sq x 1 sq (Per shower) | £80 (shower) (cost to build) | £40 | N/A | £16 full (shampoo, condition, dry) |
| 47 | Storage | 152 cm x 304cm | 2sq x 2 sq | N/A (Cost to build area) | N/A | N/A | N/A |
| 48 | Animal nap area (Beds etc) | 61 x 46 x 48 cm | 1 sq x 1 sq (Per animal) | N/A (Cost to build area) | N/A | N/A | Dog-17, Cat-9, Rabbit- 3.50, Hamster- 2.50, bird-2 |
| 49 | Outdoor space/ field | N/A | 6 sq x 6 sq | N/A (Cost to build area) | N/A | N/A | £20 per day or £13 half day (inc. play area) |
| 50 | Bird cages | 41cm x 37cm x 118cm | 1/2 x 1/2 x 1 sq | £30 | 15 | 30 | £2 (per day/ night) |
| 51 | | | | | | | |
| 52 | STALLS/ STATIONS | | | | | | |
| 53 | Clothing stall | N/A | 4sq x 4 sq | N/A (Cost to build area) | N/A | 10-15 to buy clothes | N/A |
| 54 | Treat/ feeding/ biscuit bar | N/A (prototype measures) | 2sq x 1 sq | N/A (Cost to build area) | N/A | 0.50- 1 to buy biscuits | N/A |
| 55 | Clean-up/ grooming station | N/A | 3sq x 3sq (To fit showers in) | N/A (Cost to build area) | N/A | RENT SERVICE ---> | £16 full (shampoo, condition, dry) |
| 56 | Tutoring/ training station | N/A | 2 sq x 2sq | N/A (Cost to build area) | N/A | RENT SERVICE ---> | £10 per lesson (full course 5 lessons) |
| 57 | Register/ checkout | N/A (prototype measures) | 2sq x 1sq | N/A (Part of start build area) | N/A | N/A | N/A |
| 58 | Holding pens per animal | 61 x 46 x 48 cm | 1 sq x 1 sq | N/A (Cost to build area) | N/A | RENT SERVICE ---> | Dog-17, Cat- 9, Rabbit- 3.50, Hamster- 2.50, Bird- 2 |

(Economy version 1.02) Items will cost half as much to buy as the manager than to buy as the customer, meaning each item gives an estimated 50% profit.

Average expenditure per customer and total daily earnings

All sellable/ rentable items together cost \$681 over 35 items/ products sold or rented. This means that the average price of an item is \$19.4 (681/ 35), which will be rounded up to \$20 per average item.

However, as the player is started off with \$50 to buy more expensive items, given a free cat which sells for \$100 (\$50 to restock), a \$30 Carry Case and a \$20 Litter Tray, these items should be enough to get the player to the \$100, \$200 and \$300 marks per day of playing, as they learn more about the game and earn more currency to grow and extend their store, buying more valuable items to sell.

Currency needed to upgrade items

In order to upgrade items, players will need to purchase more from the supplier, paying the amount in the 'price to buy' section of the economy spreadsheet below. However, the smaller items, players will need to buy more of in order to gain a significant income from. Players will gain a 50% profit income per item which they buy, meaning the more money they put into upgrading items, the more they will get back. This is the same when restocking items.

Currency needed to upgrade areas

In order to upgrade the space, players will need to have earned a significant amount of money. As the player will earn roughly \$100- \$300 per day, the player will require \$500 to buy an upgrade to their store. This is a nice target, as it gives the player something to aim and save up for, whilst at the same time not making them wait too long before upgrading their store. If this amount was too low, players would get this too early and would not be able to control this added space on top of their existing requirements, as they would not have enough experience and skill to care for all of the shop, meaning they would lose their ratings and eventually run out of money.

Available upgrades

- Bigger items which bring in more income
- Expanding space/ adding new areas
- Buying more items
- Buying more of the same items which are popular/ restocking.



Amount of stock per shelf

Each shelf will be placed into the world with stock already placed onto it. As the shelves are 3 squares by 1 square and most of the stock-able items being $\frac{1}{2}$ by $\frac{1}{2}$ a square, it would make sense to have 6 items on each shelf. However, the player will have to pay for the price of this, for example, a shelf will cost the player 60 gold to buy on its own, or with 6 dog bowls on it (costing 5 gold each), the total cost will come to 90 gold for the shelving unit.

Quick Time Events

Types of Quick Time Events

There are 3 main Quick Time Events: Cleaning, feeding and healing.

Mini game occurrence

In order to complete the daily tasks, players will have to complete the cleaning and feeding station QTEs at least once per day with an animal. They will be rewarded for this action however in the star rating screen. If the player cannot achieve this amount, there is a strong possibility that they will have neglected their pet, meaning that their mood will be so low that an Animal Welfare Officer will step in and take the pet away from the player.



Interest factor

The Quick Time Events give players a change of pace from the rest of the game and lets the player break away from serving customers for a brief period, as this could get repetitive if on its own for the whole game. The Quick Time Events also provide a more interesting approach to cleaning, feeding and caring for the animals than pressing a button (learned from making the prototype caring this way) and watching a progress bar go up, as they are interacting with the animals and impacting the world in unique ways, such as swatting fleas, hitting the green point of a moving bar and watching the pet eat and clicking bubbles to clean the pets.

Mini game win/ lose conditions

Clean: Pop the floating bubbles before time expires/ Fail to clean pet in time, pet will remain dirty.

Feed: Hit the green sections of the sliding bar/ Fail to feed pet, pet will remain hungry.

Health: Click all the fleas in the extrinsic time limit/ Fail to heal the pet, pet will remain upset/ ill.

Lighting

Type of lighting used

Lights will be placed around the ceiling and on the walls at night time to resemble the type of lighting at real world pet stores. These lights activate after 8PM and will most likely be static lighting but unbaked, as items will be placed into the map between days so this type of lighting will avoid having broken shadows when items are moved or placed into the world. There will also be a sky light through the night and day cycle so the store will not have to be lit during the day.

Moveable lighting

The skylight will change the look of the lighting throughout day, with the lighting at night being on the ceiling and walls, which cannot be moved by player.

Lighting details (colour, brightness, placement)

The store will feature natural light through the day/ night cycle and white lighting for inside the store at night, bright enough to fill the store with light so player can see but not too strong as to blind the player. This type of lighting set up will make the store's atmosphere feel more natural and more closely aligned to real life.



Tutorial

Although discussed above, some other important information about the tutorial section include:

Objectives

Firstly, the tutorial will show the players how to locate the objectives. Secondly, visual cues will tell players what to do and where to go, along with boss pop ups to remind players of objectives. To go along with this, the daily task lists will be on the right side of the play screen.

Level/ gameplay length

The time and date in the bottom left corner will have a clock, which progresses until 8PM and the tutorial will express that a day is between 8AM and 8PM (3 minutes long).

Players memory

The tutorial will teach the player how to play the game, with their memory carrying this information throughout the game. Mistakes in building and gameplay will serve in the players memories when things go wrong or right, as players will remember what worked last time if things go well. Tips and reminders from the boss will also serve the player well if they remember them and remembering goals will let players fully enjoy the experience when they are aiming to hit the goal amounts.



Mood/ Atmosphere

The game is aiming for an overwhelming but strategic gameplay in the play mode, with a pet shop simulator feel and a relaxed building mode to let players compose after the rush of the daily play mode.

Music and audio

The music will add to the chaotic nature of the game if it is very fast paced and exciting. Audio and sound effects will be used as cues when time is nearly up, which can cause players to panic and quickly attempt to finish the level with more points/ income.

Mood setting elements

The elements which will set the mood include the music, gameplay tasks, income goals, objectives, mechanics, timer (day length), lighting and progress bars. These all add to the atmosphere of a pet shop and the mood of chaos, as they have all been designed with a chaotic gameplay progression/ mood in mind, for example, the time for the day length has been set to 3 minutes to ensure the player does not have a lot of time to complete tasks, the music has been designed to be fast paced to make the player feel like they need to match the tempo of the music etc.

Pet shop atmosphere portrayal

The assets will make player visually know it is a pet shop, the music/ audio will make the player know it's chaotic through it's fast paced nature, sound cues will alert the player when time is nearly up, causing them to panic and take more risk, leading to more chaos. The UI plays a part in guiding the player as to what to do within the pet shop, visual tips from the boss will aid the player and the tutorial will tell the player how to play and portray the message of a busy pet shop right from the beginning of the first day.

