

Project Package Runner

FINAL DOCUMENTATION

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Introduction

Project Overview

Project Package Runner is a top-down rogue-like game built in Unity. The player must balance delivering packages and stealing them to pay their rent at the end of the day. The player must also balance other factors such as endurance & theft level for the game to continue. They also have a talent tree which they can use to spec out their character during each run, customizing the player experience. There is also a robust player inventory system with various items to ensure the main gameplay loop stays fresh and fun.

Many top-down rogue-likes have a similar concept of a player trying to survive in a procedurally generated world. Project Package Runner has a few unique features that make it stand out from the rest. The first is the ability to steal packages from people within the world. This adds a new layer of strategy to the game as the player must balance the risk of stealing packages with the reward of getting more money. The second is the talent tree. The talent tree allows the player to customize their character to their play style. This allows the player to have a unique experience every time they play the game. The third is the ability to upgrade your character. The player can upgrade their character by buying new items which will increase their stats. This allows the player to have a sense of progression as they play the game.

Conceptualizations & Motivations

The original concept came from a game design assignment from the Game Development I class. We even referenced the document to make the game idea more fleshed out. The game idea is inspired by many popular games of the genre. Titles like Stardew Valley, Dead Cells, Hades, Enter The Gungeon and many more are sprinkled throughout our game and its design choices. The motivation behind the game is to bring something unique to the genre and ultimately a game that even us the developers want to play.

The concept is that the player is placed into an almost corporate dystopia where one company oversees an entire city. This company employs everyone but doesn't pay their employees livable wages. The player is one of their employees being a delivery person. Getting paid per delivery completed, players will soon realize these targets are quite difficult and may be forced to a life of crime to survive as they need to pay rent at the end of each day.

Findings

Project Scope

Goals and Objective

- Project Package Runner will be PC targeted and developed in Unity.
- Create a unique gameplay loop where players can choose to either deliver or steal packages which makes the game replayable.
- Create a singular map that feels full and interesting.
- Standardized art and assets.
- Aim for the game to generally be difficult and stay true to the genre.
- Robust and unique skill and item system that adds player choice to the game.

Project Deliverables

- Main Menu
- Singular 2D Pixelated Map
- Package Delivery and Theft Mechanics
- Skill Tree
- Inventory System
- Item System
- Shop System
- Save System
- Day and Night Cycle
- NPC patrol units
- Alpha and Beta testing with measurable results

Project Acceptance Criteria

- Game must be free of crashes and bugs.
- Consistent performance on the platform.
- Implement all the deliverables in a clean and functional way.
- Can play through as many cycles as needed.

Project Exclusions

- Not a procedurally generated world.
- No multiplayer.
- There will not be different zones, just one singular map.
- No player customization in terms of their cosmetics.
- There will not be any microtransactions.

Project Constraints

- The major constraint will be the deadline. For a game there must be time left for testing and balancing. This will be scheduled in but adds an extra week or two.
- A game of this size with a team of 3 is ambitious but with proper planning and execution we should be able to hit our deliverables.
- As of the current project plan the team has not fallen behind and is staying on track completing tasks. No adjustments have needed to be made thus far.

Technologies Involved

Game Engine: Unity

- The Unity game engine provides all the tools for a top down 2D game along with providing us the ability to deploy on multiple platforms.
- It also provides built features such as player movement, camera movement, and collision detection, which are all essential for a top down 2D game.
- Unity Asset Store provides a large library of assets that we can use to create our game. This includes sprites, animations, and sound effects and are easily imported into the game.
- The version of Unity that we ended up using was 2021 LTS version. This provided us with better lighting options and the ability to use Plastic SCM. It also includes a new input system that allows for easy key rebinds and out of the box gamepad compatibility.

Version Control: Plastic SCM

- Plastic SCM is a version control system built into Unity. It allows us to easily track changes to our code and revert to previous versions if needed.
- A GUI application like GitHub Desktop is provided to allow us to easily view the changes made to our code.
- Plastic SCM is used by many large companies such as Ubisoft, EA, and many other indie developers to manage their code and have provided examples of their workflows and best practices.
- After having worked with it the past few months the team has not had any major issues. The program is simple to use and integrates well with Unity.

Documentation Tool: Microsoft Word

- Initially the team opted for a documentation tool that had version control and wrote everything down in markup. However, this did not really suit our workflow, so we just moved everything into Microsoft Word.
- It works well with Teams and SharePoint which makes it easier to share files amongst the team.
- It also allows us to style the document in way that many other options simply do not have.

Communication: Microsoft Teams

- Microsoft Teams is a communication tool that allows us to easily communicate with each other and share files.
- It also allows us to easily create meetings and share our screen to show each other our progress.
- It is also easy to use and has a simple interface that allows us to easily navigate through the application.

Project Management: JIRA & Microsoft Projects

- Microsoft Projects offers a robust project planning experience that allows users to plan tasks, auto generate due dates depending on the task, and create a working Gantt chart to give a solid overview of the project schedule.
- JIRA will be used for the Kanban board to track more granular game-specific tasks.

Design Tool: Figma

- The primary tool we have been using for designing mock ups and visual concepts.
- Also helped us with prototyping certain game mechanics that we had trouble envisioning.

Asset Creation: Clip Studio Paint

- The program we are using for creating any additional art assets
- Allows easy creation of pixel art with special pixel brushes and layering system

Project Plan

Updated Gantt Chart

REPLACE WITH PPR-PROJECT-SCHEDULE-P1

REPLACE WITH PPR-PROJECT-SCHEDULE-P2

REPLACE WITH PPR-PROJECT-SCHEDULE-P3

Game Elements

Kinds of Play

There are a few identifiable kinds of play within Package Project Runner. The major kind of play would be skilled based play. This game has been designed with the intention of being quite difficult and unforgiving, which appeals to players that are looking for a challenge. This is also typical of the rogue-like genre. The other kind of play is chance and uncertainty. Many of the game's mechanics are based around random values and events like opening a stolen package that contains a random item. It also contains a mixture of whimsical play and simulation. At its core, the player is simulating a delivery driver, but items and skills can make the gameplay feel whimsical.

Six Game Elements

Actions

The primary actions that the player can perform are deliveries and thefts. The player can only make deliveries during the day and steal those packages back at night. There will be no deliveries made during the night, and you can't steal packages in broad daylight. The player can also buy and sell items at the shop and purchase permanent upgrades on the skill tree using their money.

Rules

There are restrictions to what the player can do, and certain things that the player must do. For instance, there is a minimum quota of packages that must be delivered during the day, or else your employer will become suspicious. During the night, the player may only steal packages, and only those that were delivered that day. You cannot neutralize potential witnesses, attack police, or engage in any crime other than theft of the packages. You may purchase skill tree upgrades at any time but are limited to when you can buy and sell items at the shop.

Goals

The primary objective of the game is to play as long as possible without triggering any of the failure states. Once a failure state has been triggered the game will restart the exact same way every time. Goals within the game outside of the failure triggers can vary player to player and run to run. One goal could be playing the best delivery person possible and to upgrade the character in a way that promotes that playstyle. Or the player could wish to be a thief, stealing as many packages as they can while keeping their threat level to a minimum.

Objects

There are many moving parts in our game. Money is very important, as not having enough at the end of the day is one of the fail-states of our game. You collect money by delivering packages during your day job, then stealing them back. Once stolen, packages may be opened for items, which may either be sold for more money or kept for a statistical bonus to the player. Money can also be spent on the Skill Tree, which grants permanent bonuses to the player. There are many stats to consider. Among them are Endurance, which determines how much they can do in a single day, Speed, which says how quickly the player can move, Threat Level, which rises if you are caught stealing by citizens and determines the density of security at night, and Strength, which determines how affected the player is by the weight of items in their inventory. There is also Stealth, which helps to evade NPCs during the night, and Nightvision, which increases your player's "flashlight" range at night. Lastly, there is stats to represent your player's salary on successful deliveries, and Luck that helps you find more valuable items. The rules that will result in the player losing the game are getting caught by a police officer or not being able to pay the daily rent.

Play Space

The play space will be a city where the player makes their deliveries. The player can roam freely around the city streets to travel between their delivery destinations, the delivery center, their home or the shop. Aside from the streets, there will also be shortcuts, represented by manhole covers, which are unlocked with the skill tree, that the player can take advantage of to deliver packages more efficiently. The delivery center is a building where the player goes at the start of the day to pick up their packages. The shop is another important space in the city, which is where the player will buy and sell items. Lastly, there is the player's home, which is where the player begins the day and ends the night. The home also serves as a visual reminder of how well the player is doing. It becomes more extravagant as the player becomes wealthier, and vice versa if the player is running out of money.

Players

This game is meant to be a Single-Player game, and there is only one character to represent the player. The character is a mild-mannered individual who is a new hire of a delivery service, but quickly finds out that they do not pay them enough to pay their rent. Through currently unknown means, they find out that they can steal the packages back and sell their contents on the black market without arousing suspicion that the person delivering and stealing them are the same person.

Ten Game Design Tools

Constraints

The constraints within our game include not being able to commit any crimes outside of theft, and only packages that were delivered the preceding day can be stolen. There will be no “neutralizing” of any inhabitants or police officers. Further constraints include not being able to explore the world outside of the city map where the game takes place. Another major constraint revolves around the day night cycle. Players will only be allowed to deliver packages during the day and steal at night. The final constraint will be player stats such as money or threat level.

Interactions

Direct actions within our game include the delivery and theft of packages. The player can also buy and sell items at the shop and purchase upgrades on a skill tree. The player can also directly manage their inventory by moving items around, using them, or equipping them. Indirect actions include paying expenses because this action occurs automatically at the end of the day. The player must also indirectly manage their threat level, by avoiding NPCs while stealing packages, or choosing when and when not to steal packages.

Goals

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Challenge

The challenge comes from careful management of money, endurance, and threat level as mismanagement of any of these factors will lead to a downward spiral. However, even with careful planning, there is still the challenge of stealing packages from doorsteps without getting caught.

Skill, Strategy, Chance & Uncertainty

Elements of chance involve the random items that you might find in packages, at the shop, or as rewards for deliveries. Rarer tiers of item are less likely to be found than common ones. Items will have a weight, which packages containing those items share, so the player may hypothesize what is in the package as they are delivering it. Repeated play-throughs allow for more educated guesses as to what items are worth stealing. When delivering, there are many shortcuts that may be taken. While these may be revealed with a skill tree upgrade, they are always present, and using them strategically can allow for efficient delivery with minimal cost to your endurance.

Decision Making & Feedback

Decision making is very important game design tool that can be seen throughout the game. Choosing when to focus on deliveries, thefts, or a mix of both is a critical decision that the player must decide on from the start. Deciding when stealing is worth the effort, and when to lay low and reduce your threat level, is another crucial decision. After acquiring many items, players must decide what items to keep or sell, to maximize your play style while keeping yourself alive after deducting expenses. Feedback from these decisions can range from getting money per delivery, getting caught stealing, and selling items.

Abstraction

There are various levels of abstraction that can be found in the game. Mechanics like how expenses work, is much more complicated than a flat sum. Carrying many heavy packages would be an impossibility in the real world but is manageable by our protagonist Real police would be able to identify the thief and arrest them with even a semi-good description of who they were by potential witnesses. However, all these elements are to reduce confusion and create a more meaningful player experience over a more realistic world experience.

Theme

The overall theme of the game will vary between delivering packages and stealing them which match the day-night cycle. When delivering, there will be a lighter theme, along the lines of the game Paperboy, where everyone assumes you are a law-abiding, semi-competent delivery person. At night, the mood changes to reflect the more illicit side of the game, where keeping yourself hidden and avoiding detection are paramount, and afterwards when you must deal with shady people on the black market.

Storytelling

The story within the game is shrouded in mystery intentionally. There is no typical campaign, character depth, but rather small clues as to what kind of world the player is in. Generally, within the rogue like genre the story isn't the main driver of play but rather serves as a vehicle for the gameplay mechanics. The player will learn that they are in a world where they are a delivery driver and the company, they work for does not pay enough wages. This company employs everyone in the city. Due to the low wages the in-game shop at night turns into a place where people can sell stolen packages to make rent.

Context of Play

We are designing this game with longer, PC sessions in mind. Unlike a mobile game like Angry Birds or Subway Surfers, it can take a longer period to see results, which means fewer save points in between. Because of tense situations involving stealth and endurance tracking, it is not something that can be suspended for a long period of time. Lastly, as a single-player game, players will likely be playing alone, but may want to compare scores with other players.

Target Audience

ESRB Rating

Project Package Runner will not include any violence, direct or implied, and has no cases of suggestive scenes or nudity. The rating can remain below a T rating. There may be depictions of alcohol and drugs, however, these will likely be merely referenced, and not depict use of alcohol or drugs. There will be depictions of weapons, but not direct use of them. Cases of comic mischief, though nothing in terms of crude or mature humor. Lastly, there will be no instances gambling, real or simulated. We are targeting a rating of E10, with content descriptors including comic mischief and alcohol use.

Player Target

The player type target would be the Achiever type. While our game lacks any final objectives, the game encourages repeatability through a dynamic player style reinforcement design. Through various mechanics such as a robust item system, skill tree, and different styles of play, new build will emerge. The replayability is a trait achiever types generally draw too. This is also the appeal of the Rogue-Like genre in general. The player may choose to focus only on deliveries and forgo theft. The next time, they may go the opposite direction, delivering only as much as is technically needed to focus on theft. Achievers will boast about how far they have gotten on each different play style. There are also some possible aspects enticing to the Explorer type, who will enjoy the experimentation with different item combinations, and exploring the open world for each hidden pathway. There are fewer appealing elements for the Socializer and Killer types, as our game is single player.

We expect that players to be somewhat familiar with the Rogue-Like genre, as there will be little handholding of mechanics. The game will also feature tight management of resources, specifically money, endurance, and threat level. Players that are not accustomed to considering multiple factors at once may find our game confusing but will attract those looking for a challenge. In summary, while our game does not feature much objectionable content, it is geared towards a more mature player looking for a challenge.

Platform Target

The target platform for Project Package Runner will be for the PC and specifically on Steam. Steam is the most popular digital distribution service created by Valve. We believe in its current state our game services a mouse and keyboard setup along with a gamepad. Our game can also be ported for the major consoles, given the game's light graphics requirements and low content warnings. It is less likely to be published for a mobile platform, as our game will require longer play sessions that mobile games cannot usually accommodate along with more complex controls that could make the player experience poor.

Game Mechanics

Day Night Cycle

- The day night cycle is the corner stone of the game as it dictates what the player can do in game depending on the time.
- During the day the player needs to make deliveries so they can get paid per delivery along with potentially setting up theft spots for the night cycle.
- They are also able to only buy from the shop during the day.
- NPCs do not pay attention to the player during the day, so the player can make deliveries in peace.
- At night a few variables change forcing the player to change strategy.
- Once it becomes night the player will be able to steal any packages they had delivered during the day.
- They also have access sell any items on the black market in the city's shop.
- NPCs will notice the player at night and if the player spends enough time in the radius their threat level increases.
- This threat level directly ties into how many police officers are patrolling the city.
- The player is also able to end the night phase by going back to the apartment and sleeping in their bed to begin the next day.
- Between the night and next day an important check is made to see if the player has enough money to pay rent and utilities.
- This check happens every cycle regardless of any other variables.



Figure 1: Recap screen after day and night cycle

NPC Detection

- There are three different kinds of NPCs in the game. Residents, sentry units, and cops.
- Randomly generated NPCs will be placed around the map. The primary use of the NPC's will be during the night phase where a detection radius appears around them.
- The player will need to avoid NPCs to remain undetected.
- If in the radius for longer than two seconds, the threat goes up by a random amount between 1% and 20%.
- Sentry and resident units behave the same. Only difference is sentry units are cameras that do not move.
- They do not have the ability to end the players game directly.
- During the day the NPC's radius isn't active and the player is able to deliver packages without having to worry about this mechanic.
- Police officers are a different NPC that can end the player's game if caught.
- The number of police officers on patrol is in direct correlation of the players threat level. The higher the threat level, the more police officers are on the map patrolling during the night.



Figure 2: Sentry Detection UI

Delivery

- The delivery mechanic is an important part of our game as players will need to deliver a certain number of packages per day in order.
- The delivery points will be randomized throughout our map.
- The player gets paid per delivery completed.
- After certain milestones players will also be gifted random items from the company.
- The only limitation on how many packages are delivered in a day is the player and how they balance their weight, routes, and other variables.
- To complete the delivery, the player will need to enter a “zone” and the package and address have the same ID. The package is automatically placed on the zone.
- Delivery points are indicated on the mini map as a pulsing red zone and disappear one delivery.
- Once delivered the zone turns green indicating a successful delivery.
- There are 100 delivery points across the map.
- Packages respawn every 30 seconds at the work location.
- There is no monetary penalty for not delivering packages but once night comes you will be unable to deliver the package and to be held as deadweight until it is removed the next day.



Figure 3: Undelivered Package



Figure 4: When a package is delivered.



Figure 5: Mini Map with delivery points

Theft

- Theft is the mechanic that can be completed during the night cycle.
- Any deliveries made that day are available to steal.
- Players need to maneuver around NPCs and police officers during the night to not get caught.
- While stealing the player has a random chance for their threat to increase.
- The player cannot fail stealing a package, but rather must worry about how much their threat goes up.
- To steal, the player will have to long press the button in order to complete the theft.
- Once a package has been stolen, the item inside will appear in their inventory.
- Players then have a choice of either keeping the item or selling it on the black market.



Figure 6: Theft UI

Player Stats

- Player stats are an important mechanic of our game as it affects many different other mechanics.
- The primary stats that the player has are speed, endurance, stealth, money, and weight.
- Speed increases player movement.
- Endurance determines how much they can do in a day. As the player moves, endurance gradually decreases, and if it reaches 0, the player passes out and is returned to their apartment, however they lose all items that are not equipped. Endurance resets at the end of each day.
- Money is made in various ways such as making deliveries or selling stolen items on the black market. If the player is unable to pay rent at the end of each night the game will end. They can also spend their money on purchasing items or permanent skills in the skill tree. Whatever money is leftover carries over into the next day.
- Salary stat determines the amount of money made per delivery.
- Luck stat determines the odds of finding a more valuable item in a package or the shop.
- Weight is how many items the player can hold at one time. Each item has a weight and once over certain thresholds negative effects begin to occur on the player like the player not being able to move as quickly.
- Strength allows the player to carry more weight without as much of a speed penalty.
- Stealth allows the player to stay in the NPC detection radius longer without being detected.
- Nightvision allows the player to see further at night, increasing their “Flashlight” radius.
- Most of these stats can be increased by equipping items and purchasing skill tree nodes.

Skill Tree

- Skill tree is a way for the player to customize their character to their play style.
- They can choose to focus on one aspect of the game or spread their points out to be more well-rounded.
- Either styled more towards delivery or theft.
- As the player progresses down the tree, they can unlock the next skill if they have the parent skill already unlocked.
- The further down the tree, the more money is required for each skill.
- The player can make any combination so long as they have the money to do so.
- This will allow for an immense amount of replay ability as every run can provide a completely different playstyle.
- In the middle of the tree are skills that both sides of the tree may find useful.



Figure 7: Neutral Skill Icons

- Speed Up: Increase player speed by the following amounts.
 - Tier 1: 5%
 - Tier 2: 10%
 - Tier 3: 20%
- Lightweight: Increase the player's strength, allowing them to carry more.
 - Tier 1: 5%
 - Tier 2: 10%
 - Tier 3: 15%
- The left side of the skill tree is aimed at players who wish to maximize their delivery skills by providing them bonuses such as increased pay, speed boosts during the day, and revealing shortcuts throughout the map to quicken their delivery routes.

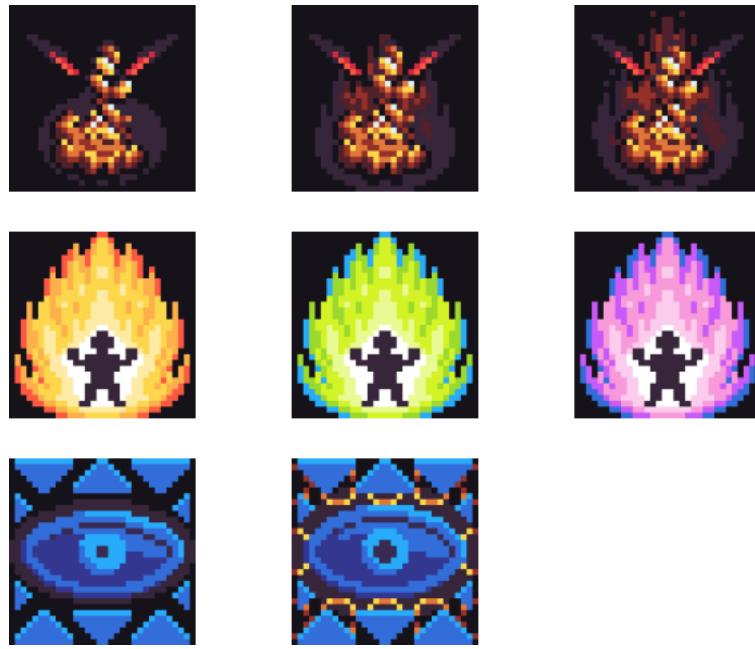


Figure 8: Delivery Skill Icons

- Pay Raise: Increase Pay Per Delivery and Chance for Better Item Reward.
 - Tier 1: 15% plus item roll.
 - Tier 2: 25% plus item roll.
 - Tier 3: 40% plus item roll.
- Corporate Empowerment: While delivering packages during the day movement speed and endurance recovery rate increase.
 - Tier 1: 5% speed increase and endurance recovery rate.
 - Tier 2: 10% speed increase and endurance recovery rate.
 - Tier 3: 15% speed increase and endurance recovery rate.
- Delivery Expert: Shortcuts, represented by manholes, are opened throughout the city.
 - Tier 1: One random shortcut is unlocked.
 - Tier 2: All shortcuts are unlocked.
- The right side of the tree is aimed at players who wish to maximize their ability to steal packages by providing them with tools such as staying undetected longer by NPC's range, enhanced nighttime movement, and increased light radius at night.

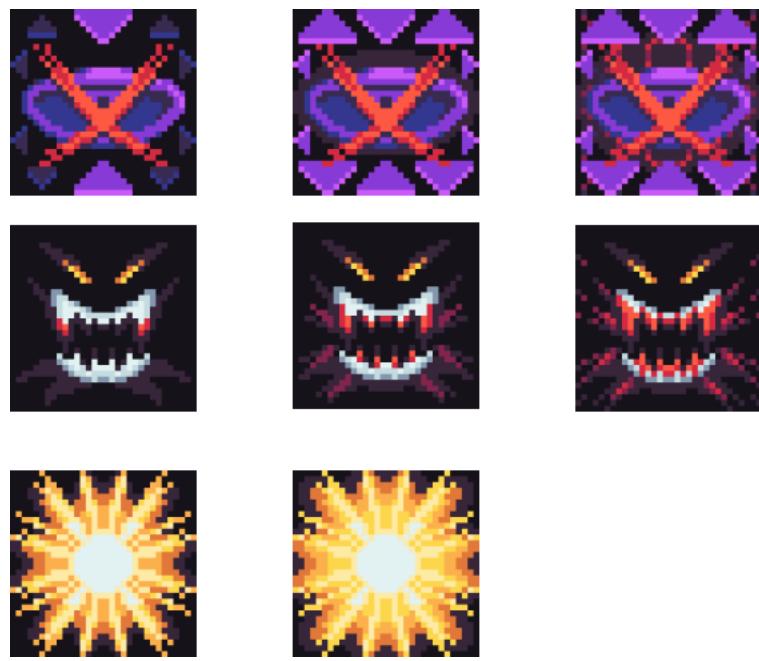


Figure 9: Theft Skill Icons

- Blindsight: Stay undetected longer when in range of NPC's during the night.
 - Tier 1: 10% increased time.
 - Tier 2: 15% increased time.
 - Tier 3: 20% increased time.
- Nightcrawler: At nighttime your movement speed and carrying capacity increase.
 - Tier 1: 10% speed increase and 5% increased carrying capacity.
 - Tier 2: 12% speed increase and 7% increased carrying capacity.
 - Tier 3: 15% speed increase and 10% increased carrying capacity.
- Shadow Illumination: Increase the radius of your flashlight at night.
 - Tier 1: 10% radius increase.
 - Tier 2: 20% radius increase.

Inventory

- The Inventory is a pop-up menu which displays all the Items the player has and allows them to interact with them.
- It is comprised of a 4 x 3 grid of cells, each of which can hold a single item.
- If the player happens to get two of the same items, they do not stack in the inventory but will fill individual cells.
- There is a separate column of cells to the right of the main inventory, which is where Equipment Items can be placed.
- All Items in the player's inventory will be removed if the player passes out from running out of Endurance, except for those in the Equipment cells.
- Above the Inventory cells is a progress bar showing how much money the player has made compared to how much is due at the end of the day.
- When hovering over a cell with the mouse, or when using the arrow keys, the selected cell will be highlighted yellow.
- If a cell is hovered over or selected for more than 1 second, a tooltip will display containing information of the item inside such as the name, a tooltip description, it's weight and rarity, and its effects when equipped/consumed.

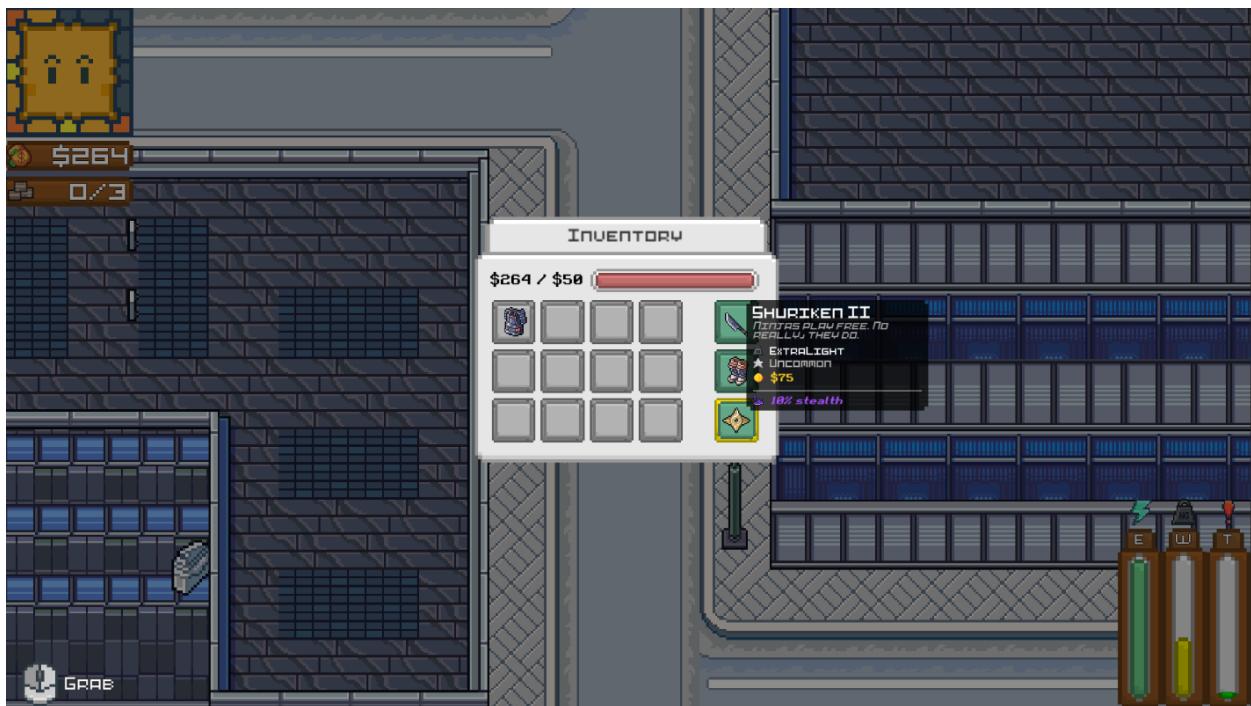


Figure 10: The inventory menu concept. It uses assets from the Pixel UI package by PixelSoftGames. Item assets from The Japan Collection: Icons by Guttu Kreum

Items

- Items come in 2 main types: Packages and Goods
- Packages are special items which the player must deliver to certain locations.
- Each package contains a Good.
- Goods items are usable items you get from packages.
- The player can use Consumable Goods by right clicking the item.
- They all have a buy price and a sell price.
- They have one of 5 rarity tiers which determines the chance of getting one from a package: Common, Uncommon, Rare, Epic, and Legendary
- Goods can have 2 sub types: Consumable & Equipment
- Consumable Goods have a one-time use and are removed from the Inventory afterwards. These encompass items with effects such as regenerating stamina.
- Equipment Goods are items that give the player a stat upgrade while placed in an equipment slot.
- All items have one of 5 weights: Extra Light, Light, Medium, Heavy, Extra Heavy.
- There are a total of 75 unique items in the game.



Figure 11: Tooltip of an item

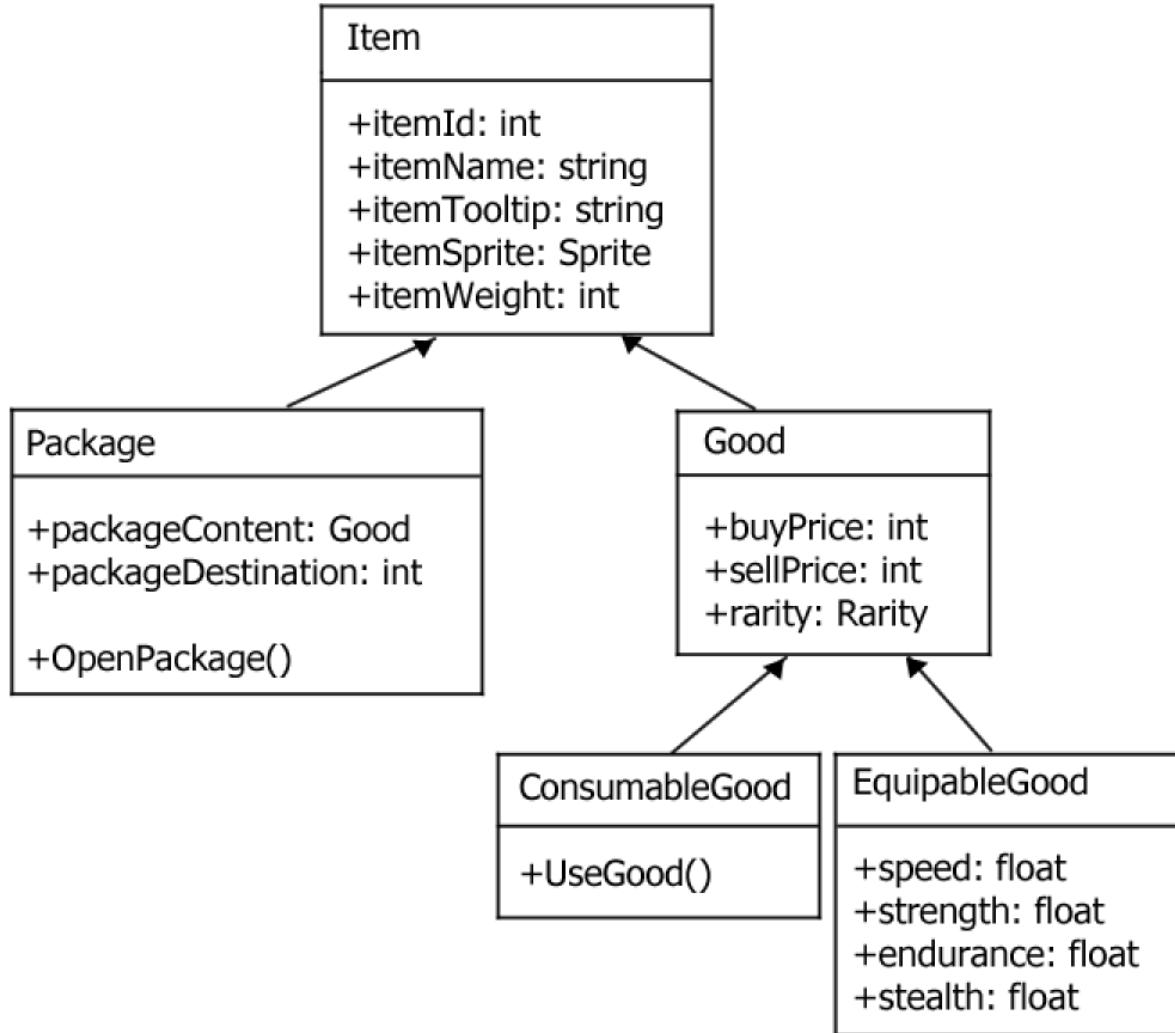


Figure 12: A UML class diagram, showing the hierarchy of Items.

Shop

- The Shop is a location the player can enter at any time during the game.
- Within the shop, there is a stand which displays 3 items during the day and a shopkeeper NPC behind it during the night.
- The 3 items will be generated randomly at the start of each day cycle.
- During the daytime, the player can walk up to an item and a tooltip tip will appear displaying information and a price.
- If the player has enough money, they can buy that item and it will disappear from the stand and appear in their inventory.
- During the night, the player can no longer buy items, but they can sell items by walking up to the shopkeeper, opening their inventory, and choosing an item to sell.
- If the player clicks while near an item, the player can buy the item.
- While near the shopkeeper, if the player right clicks on an item in their inventory, it will be sold, and the player will receive money.



Figure 13: Day Shop Concept Art Concept of the player approaching the item stand to buy items. Assets from the Pixel UI package by PixelSoftGames, The Japan Collection: Icons & Character Pack by Gatty Kreum.

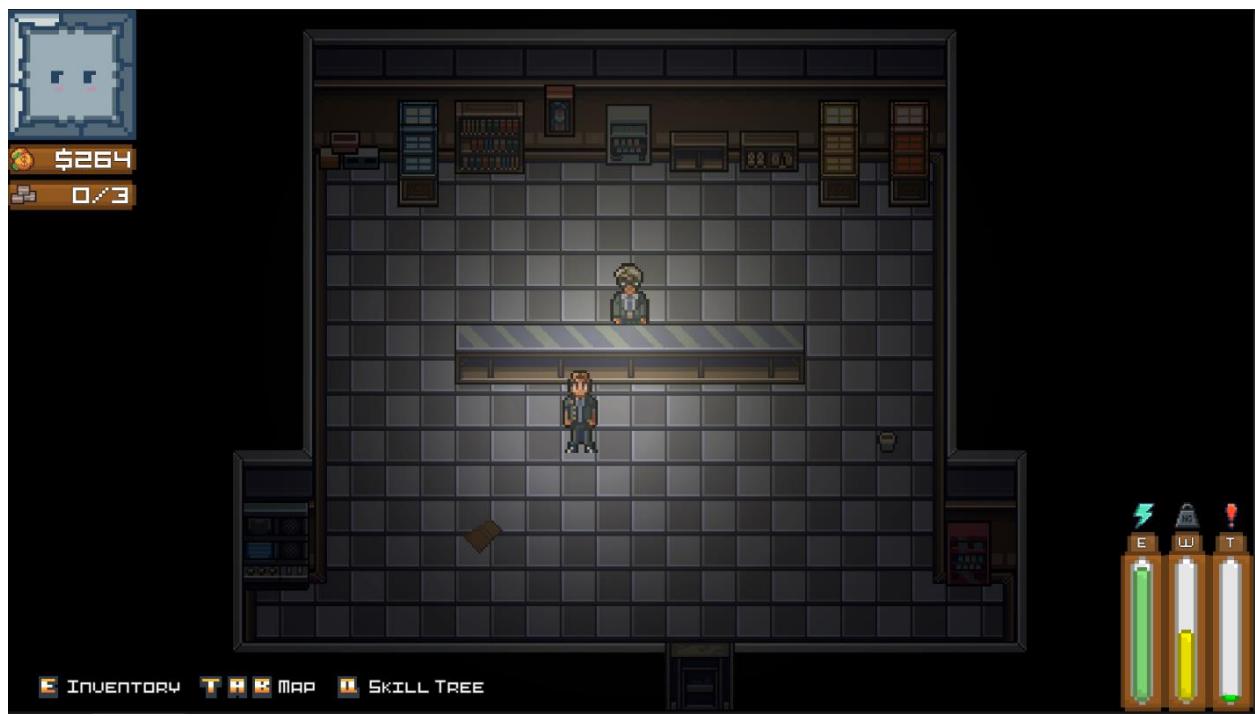


Figure 14: Concept of the player approaching the shopkeeper to sell items. Assets from the Pixel UI package by PixelSoftGames, The Japan Collection: Character Pack by Gutty Kreum.

Mechanic Summary & Design Patterns

Mechanic	Description	Core Mechanic?	Mechanic Type	Design Pattern
Day/Night Cycle	The player will primarily deliver packages during the day, and steal packages at night. The player will choose when to advance the cycle, but running out of Endurance will force the day to end.	Yes	Progression Mechanism	Static Engine
Items	The player will collect items by opening stolen packages, earning rewards for good deliveries, and from the shop. They may sell items for money. Item appearance rate is affected by their rarity, which in turn will affect their buy/sell prices. Each item has a weight, rarity, and effect when equipped. The weight of carried items will affect the player's speed and endurance decay rate.	Yes	Internal Economy	Static Engine, Playing Style Reinforcement
Inventory	Items kept will be stored in the player's inventory. There are three equipment slots where the player's active items will be kept, as well as other slots that will store packages and other items. A loss of endurance will lose backpack contents, but not equipped items	Yes	Internal Economy	Static Engine
Navigation	Movement in the city block will be done with the WASD, or other keybinds. During the day, the player will navigate the city block, and can use shortcuts to optimize their delivery route. Movement at any time is affected by speed and item weight and uses up endurance the longer you travel.	Yes	Tactical maneuvering	Static Engine, Static Friction,

Mechanic	Description	Core Mechanic?	Mechanic Type	Design Pattern
Endurance	<p>Any movement expends Endurance. Losing all your Endurance while navigating will cause your player to pass out, forcing the day to end and cause you to lose all non-equipped items.</p> <p>Doing so while you have undelivered packages during the day will cause your Threat/Suspicion level to rise.</p> <p>Endurance levels will be restored to full at the end of the day.</p>	No	Internal Economy	Static Engine, Dynamic Friction, Stopping Mechanism
Threat	<p>Your threat level determines how much security there is during the night cycle. A higher threat level means NPCs will be more numerous and more effective, increasing their sight range, etc.</p> <p>Threat level rises when you successfully steal packages, when you are caught on surveillance camera / NPC radius, and when you fail to meet quota/ have undelivered packages at the end of the day cycle. Threat levels naturally decay at the end of each day.</p>	No	Internal Economy, Social Interaction	Static Engine, Dynamic Friction
NPCs/Security	<p>NPCs will include both the inhabitants of the houses on the city block, and roaming police officers. If cops spot you stealing packages, it will be game over. In addition, security cameras will also monitor the perimeter of some houses. Suspicious behavior around these cameras will raise your threat level. Higher threat levels will mean more police patrols.</p>	No	Social Interaction	Dynamic Friction

Mechanic	Description	Core Mechanic?	Mechanic Type	Design Pattern
Delivery	<p>During the day, the player must deliver packages to select houses. The player can deliver as many packages as they want on a given day, however there is a minimum quota the player must meet, or else their threat level will rise. The player will pick up packages at the start of the day, each with a weight that hints at its contents. If the player fails to deliver all packages they picked up or fails to meet quota (either by choice, or because they ran out of endurance), their threat level will rise accordingly. Successful deliveries earn money and random items.</p>	No	Tactical Maneuvering, Internal Economy, Social Interaction	Dynamic Engine, Static Friction
Theft	<p>At night, the player can steal packages that they delivered the previous day. They can only steal packages, and only those that were delivered that day. Getting caught by officers during this time will result in a game over. Successfully stolen packages are opened to reward random items.</p>	No	Tactical Maneuvering, Internal Economy, Social Interaction	Dynamic Engine, Dynamic Friction

Mechanic	Description	Core Mechanic?	Mechanic Type	Design Pattern
Skill Tree	Stats may be raised with the skill tree. Skill tree nodes may be purchased with money and offer permanent boosts to your stats. Nodes are purchased from the top down, and prerequisite nodes must be purchased to buy a node. On the left side of the tree are skills focusing on Delivery, and the right focuses on Theft. Nodes down the middle help with both.	No	Internal Economy, Progression Mechanism	Dynamic Engine, Playing Style Reinforcement
Speed	Your speed stat determines how fast you can move around the city block. Speed is affected by the weight of all carried items, as well as the effects of equipped items and Skill Tree upgrades.	No	Internal Economy, Tactical Maneuvering	Dynamic Engine
Shop	The player may buy and sell items from the shop. Up to three random items will appear as stock each day. At night, the items disappear, and players will be able to sell items.	No	Internal Economy	Converter Engine, Trade
Money	The player collects money to purchase items, skill tree nodes, and to pay off expenses at the end of each day. If the player cannot pay their bills at the end of the day, it results in a game over.	No	Internal Economy	Converter Engine, Static Friction
Weight	Each package/item has an associated weight. The weight of all your carried items will contribute negatively to your travel speed and endurance decay rate. Listed weights of packages hint at what item is inside of it.	No	Internal Economy, Tactical Maneuvering	Dynamic Friction

Prototype

High Fidelity Prototype

Introduction Menu



Figure 15: Main Menu UI

Credits Menu



Figure 16: Credits Screen in settings

Keybind Menu

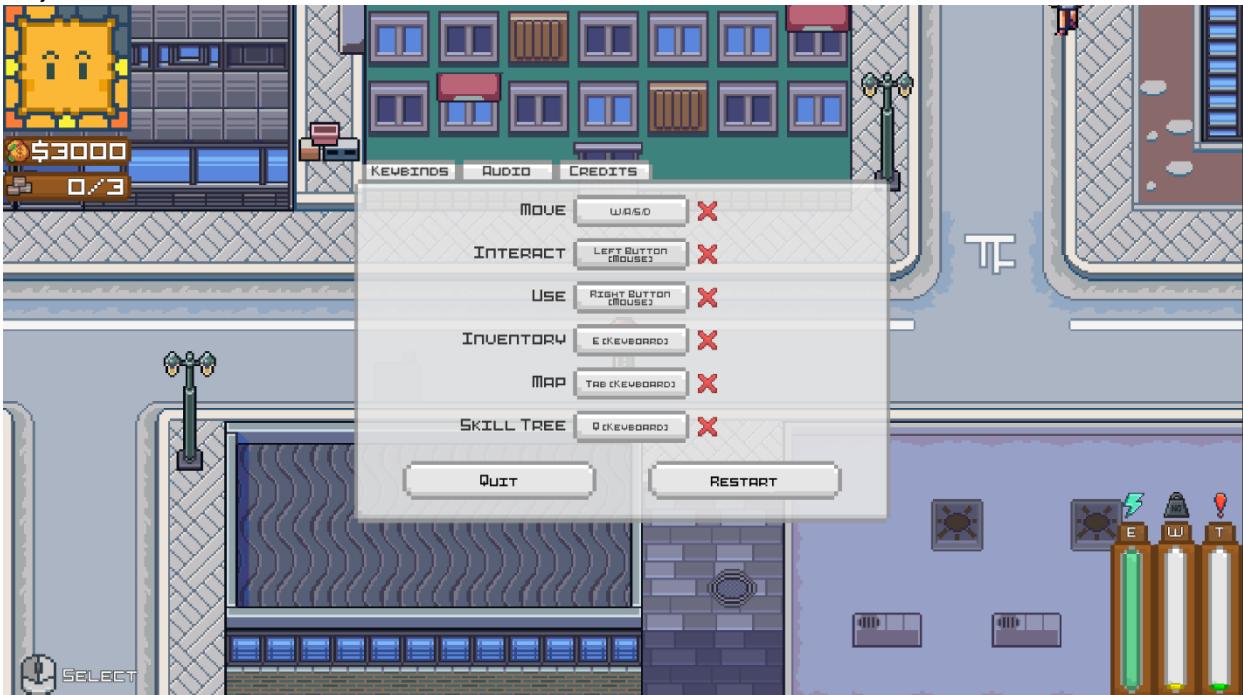


Figure 17: Keybind Menu

Audio Settings Menu

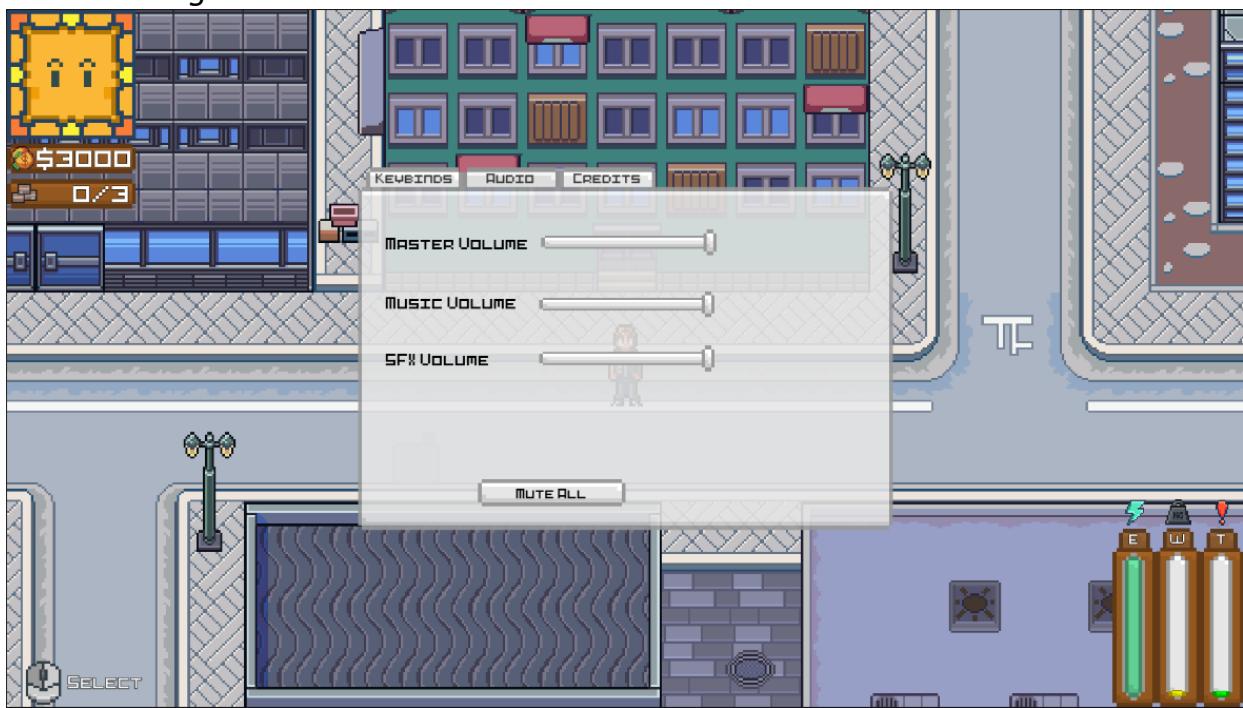


Figure 18: Audio Settings Menu

Game Over Screen (Can't Pay Rent)



Figure 19: Game over Screen when the player cannot pay rent for the day.

Game Over Screen (Caught by Cops)



Figure 20: Game Over Screen for when the player gets caught by the police.

Game UI



Figure 21: Game UI

Inventory UI

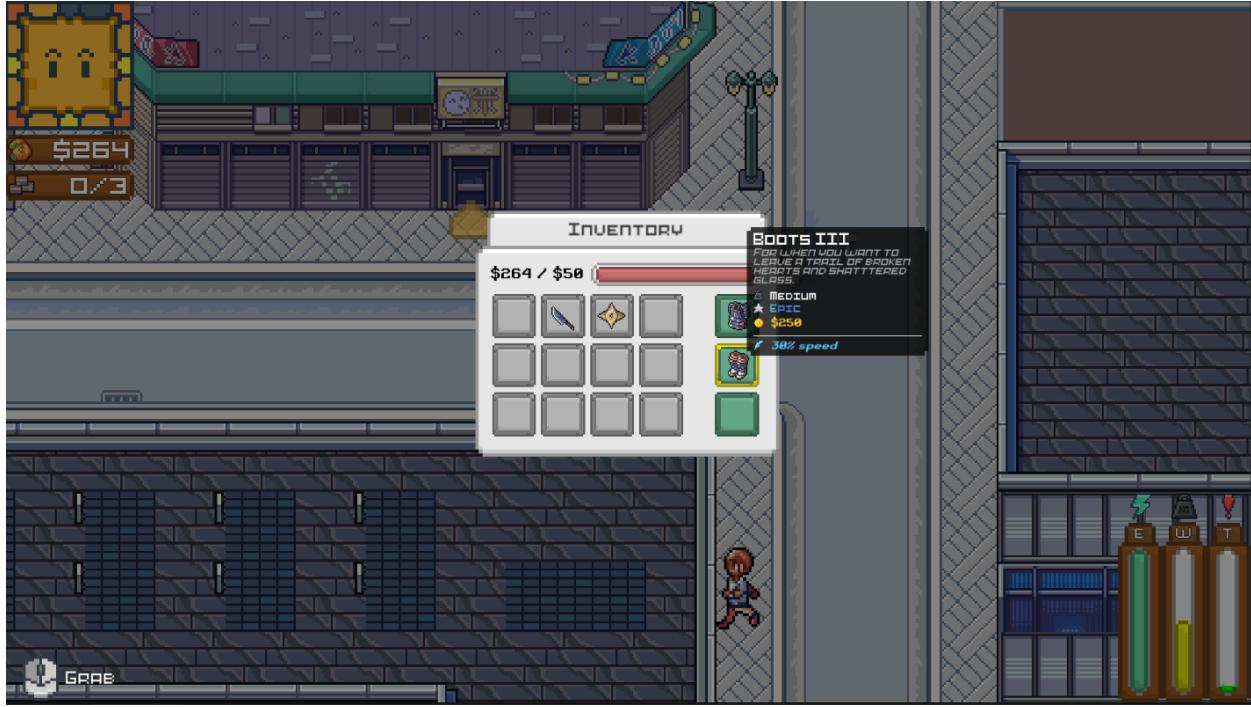


Figure 22: Inventory UI

Day Shop UI

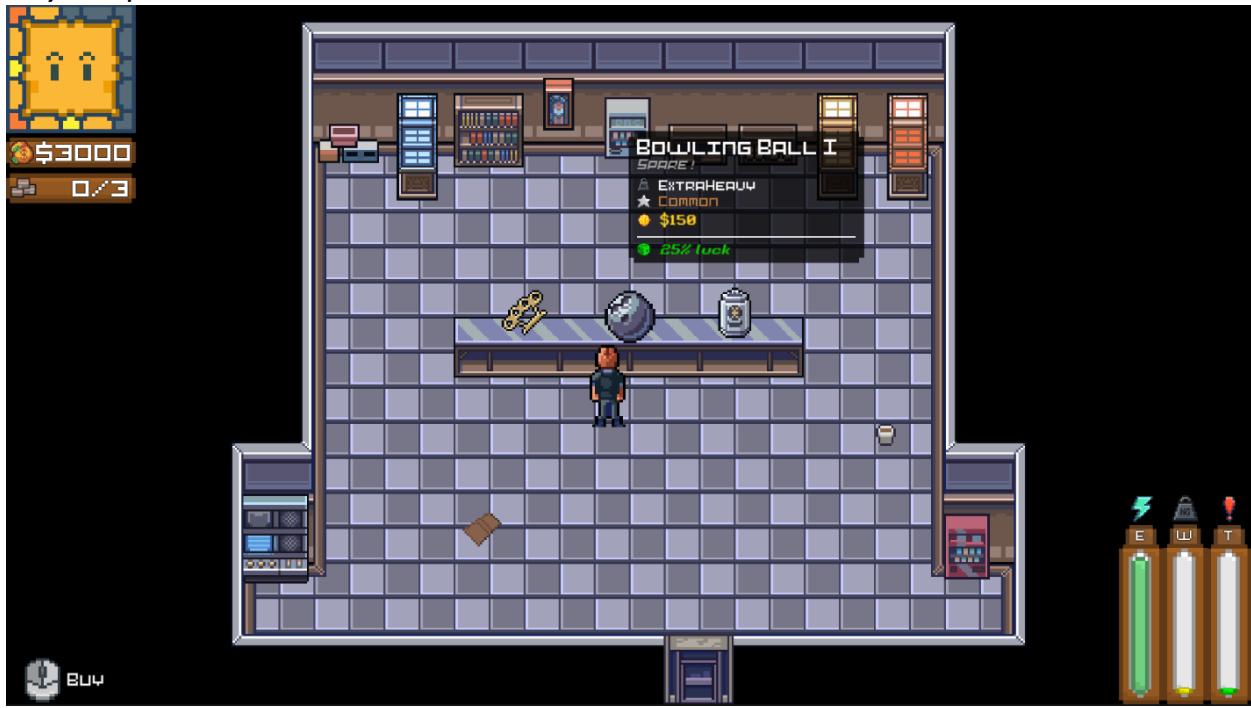


Figure 23: Day Shop UI

Night Shop UI

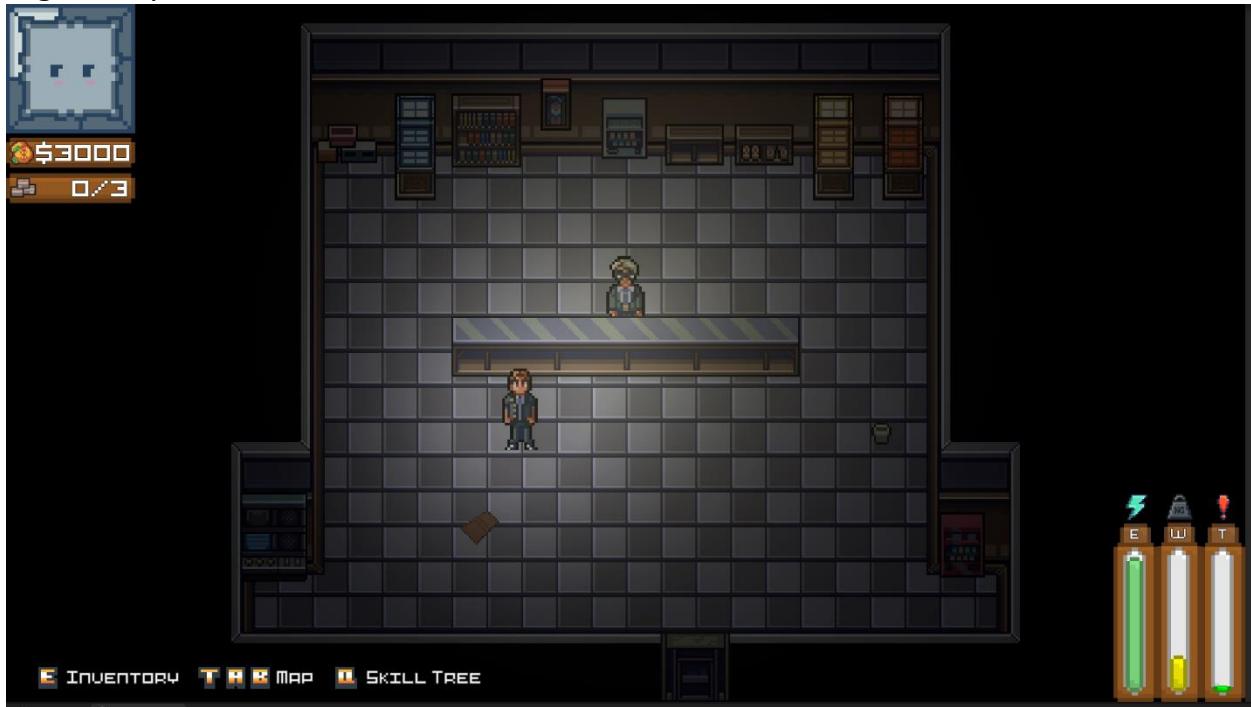


Figure 24: Night Shop UI

Skill Tree UI

- The UI was created with the Pixel UI Package and the background was made in Figma.
- The icons were made by unTied Games titled Super Pixel Skill Icons Pack 1.
- <https://untiedgames.itch.io/super-pixel-skill-icons-pack-1>

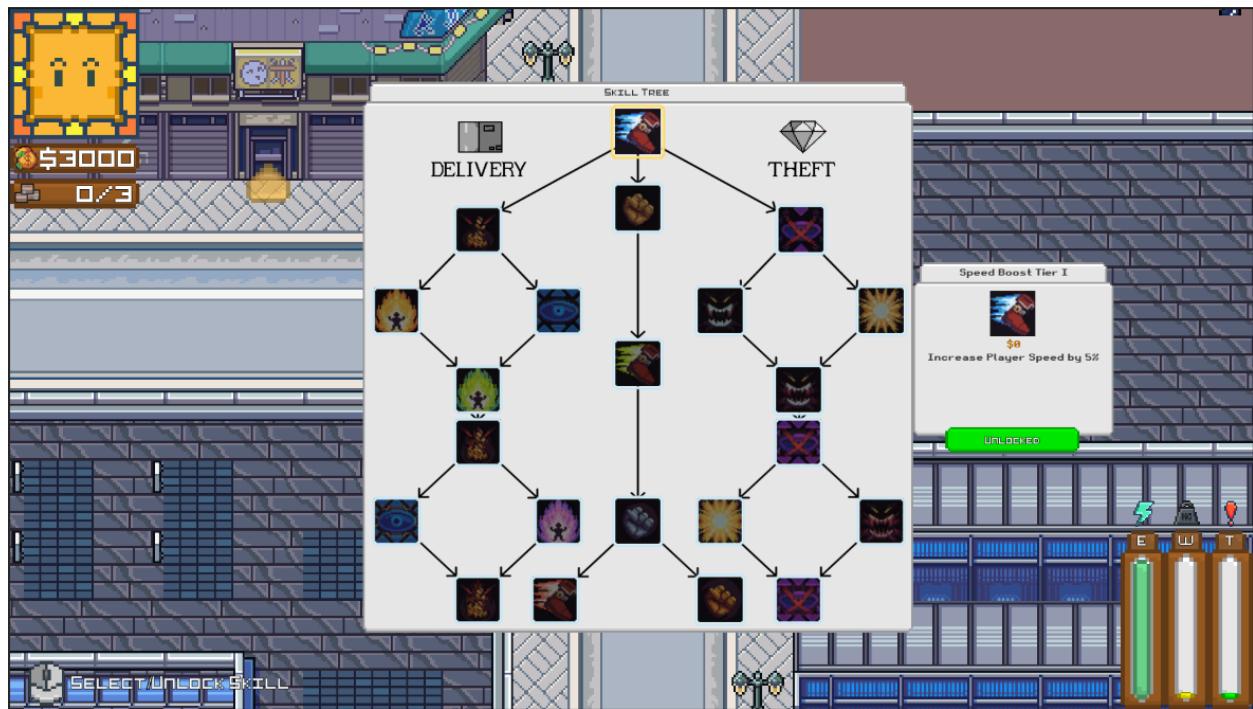


Figure 25: Skill Tree UI

Mini Map



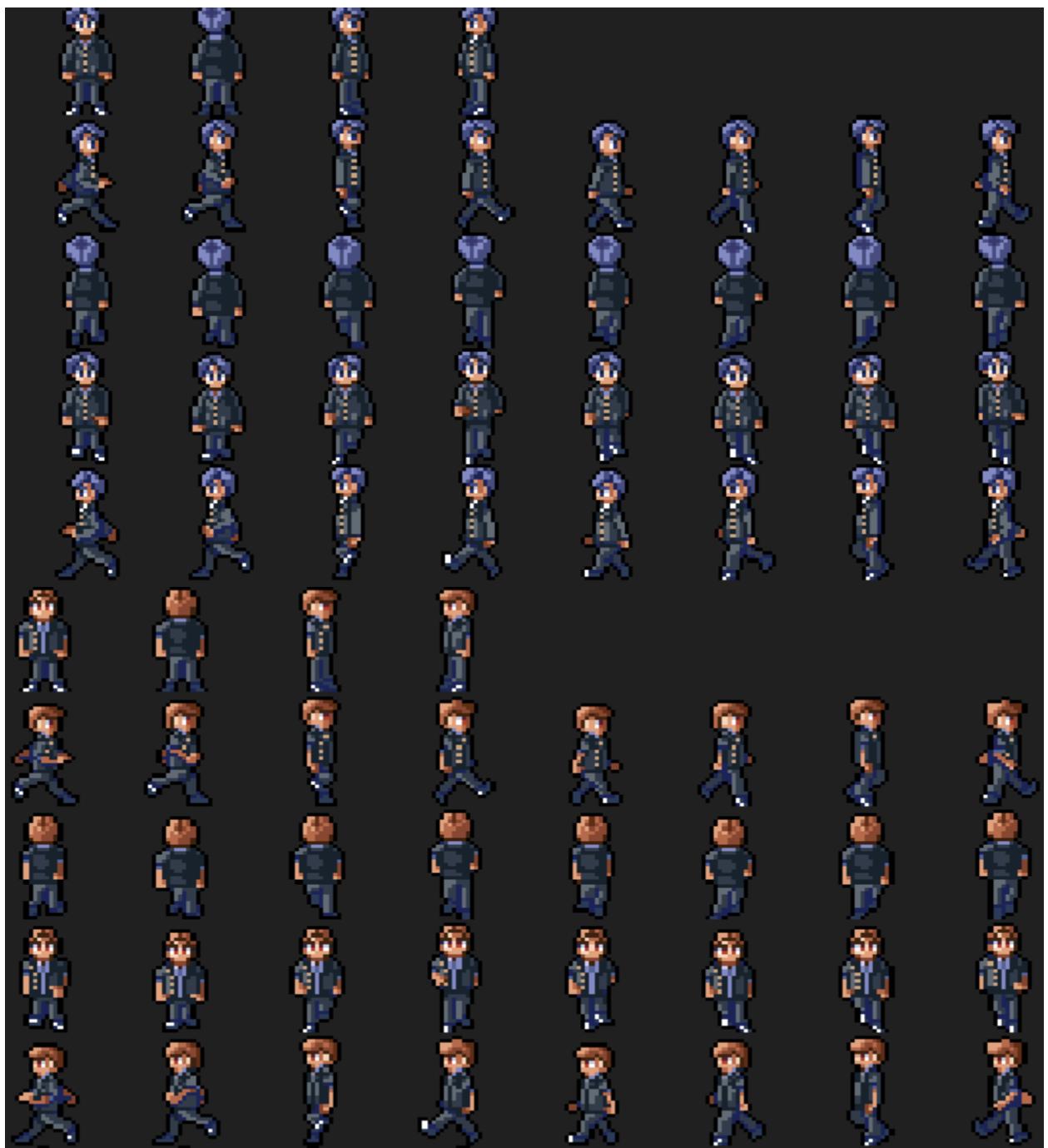
Figure 26: In game Mini map

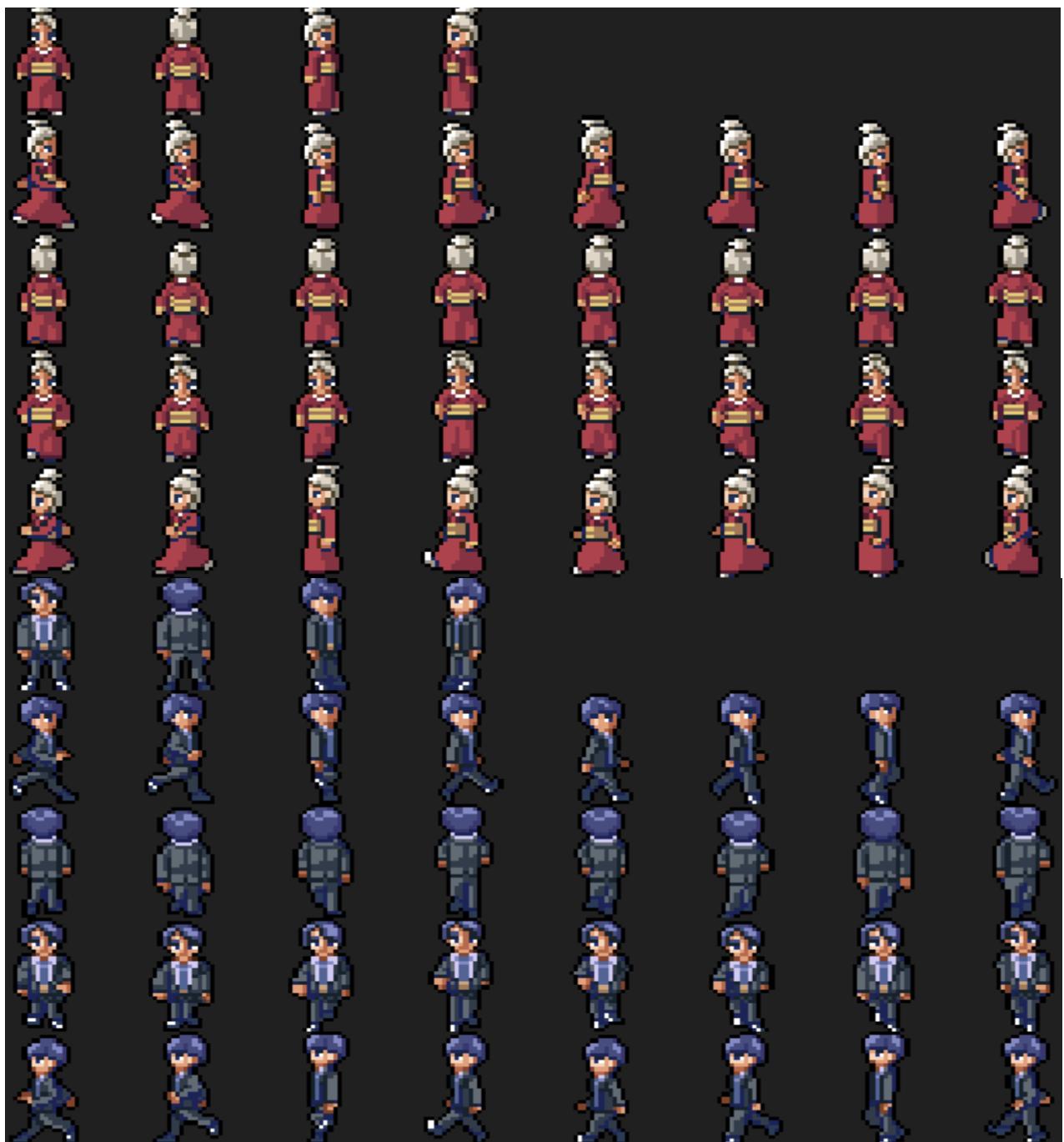
Art Assets

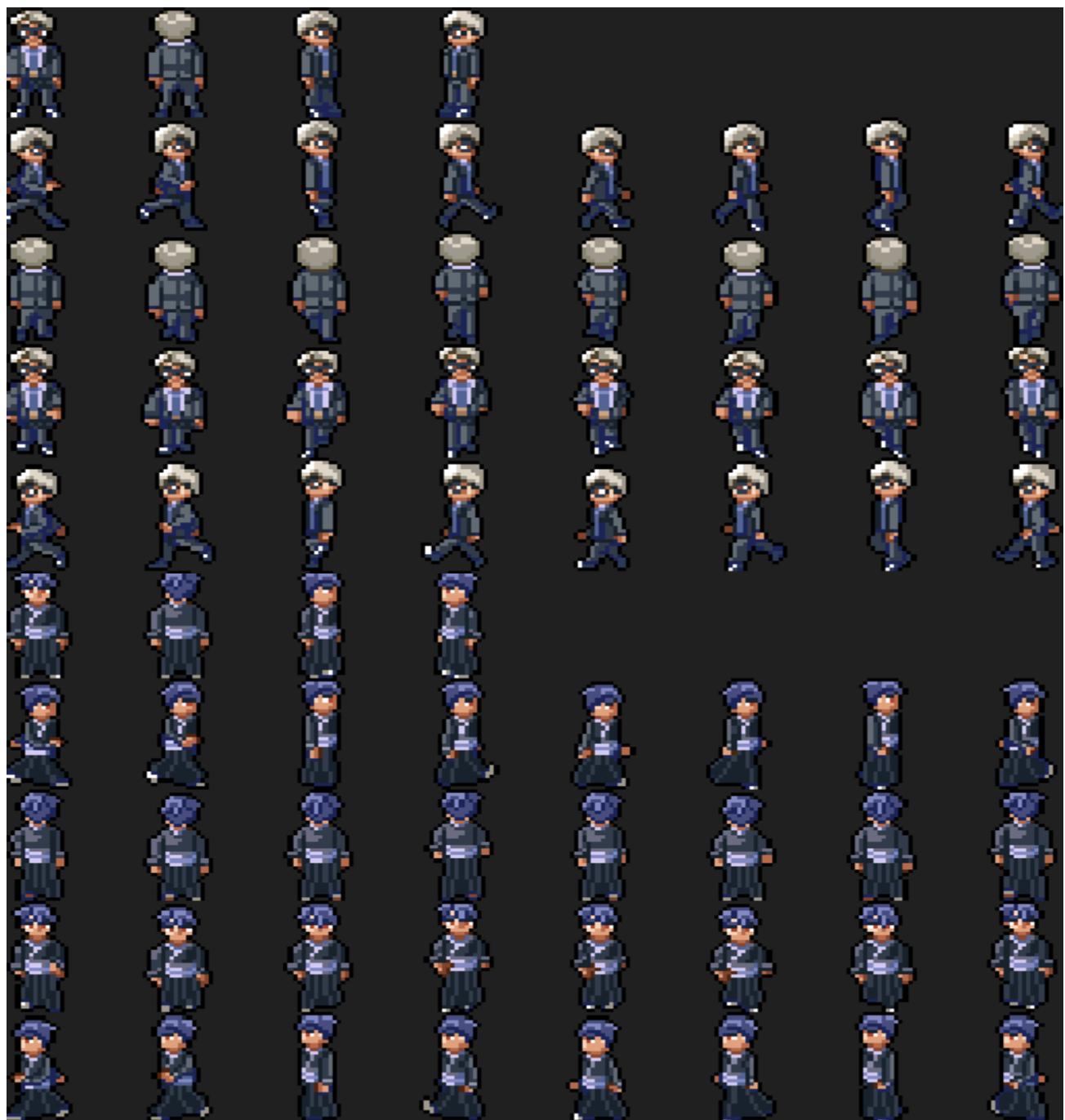
Player & NPC Sprites

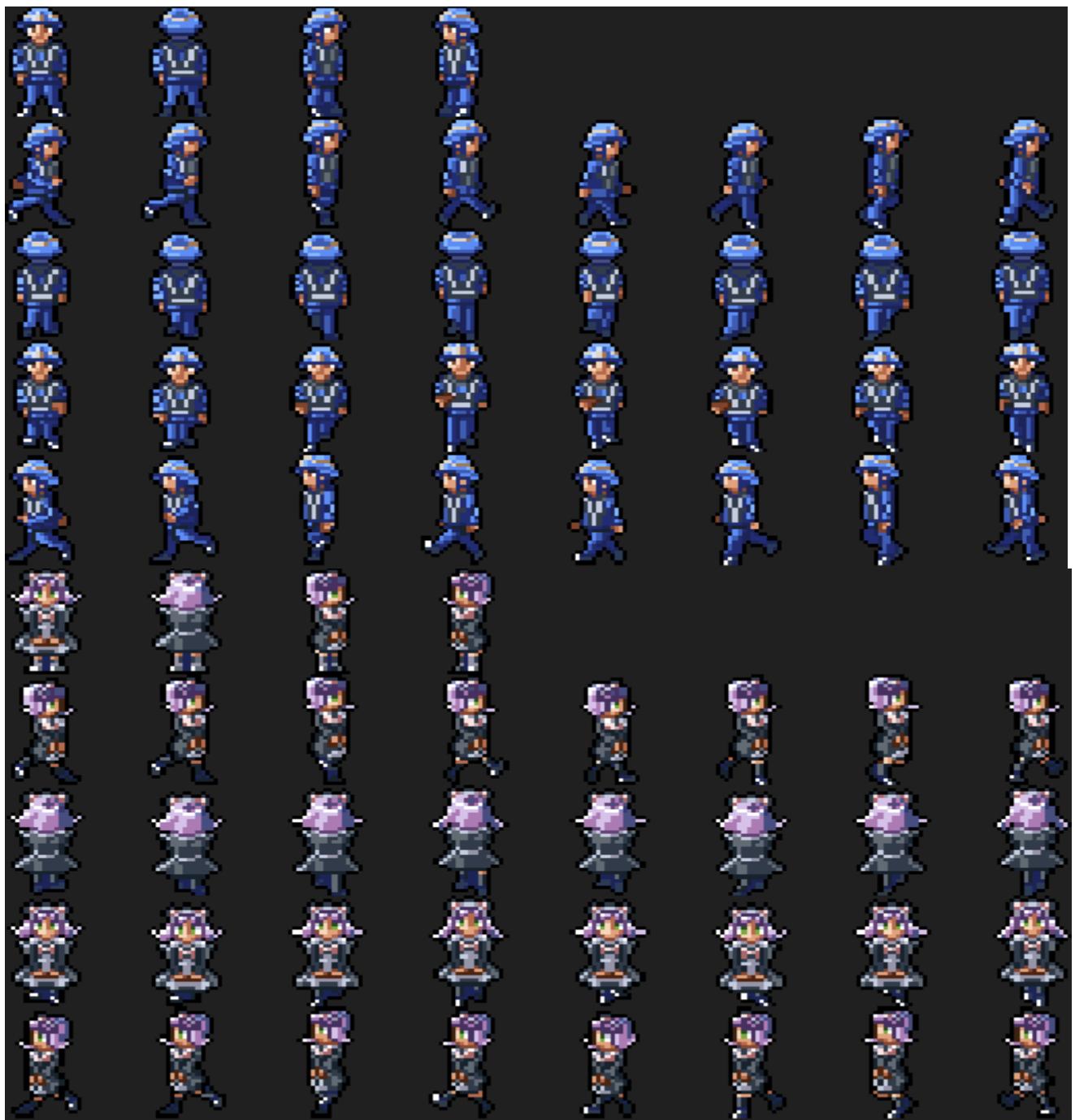
- The Japan Collection: JRPG Characters Pack by Gutty Kreum.
- The sprites will be randomized for all the NPCs in the game along with the character.



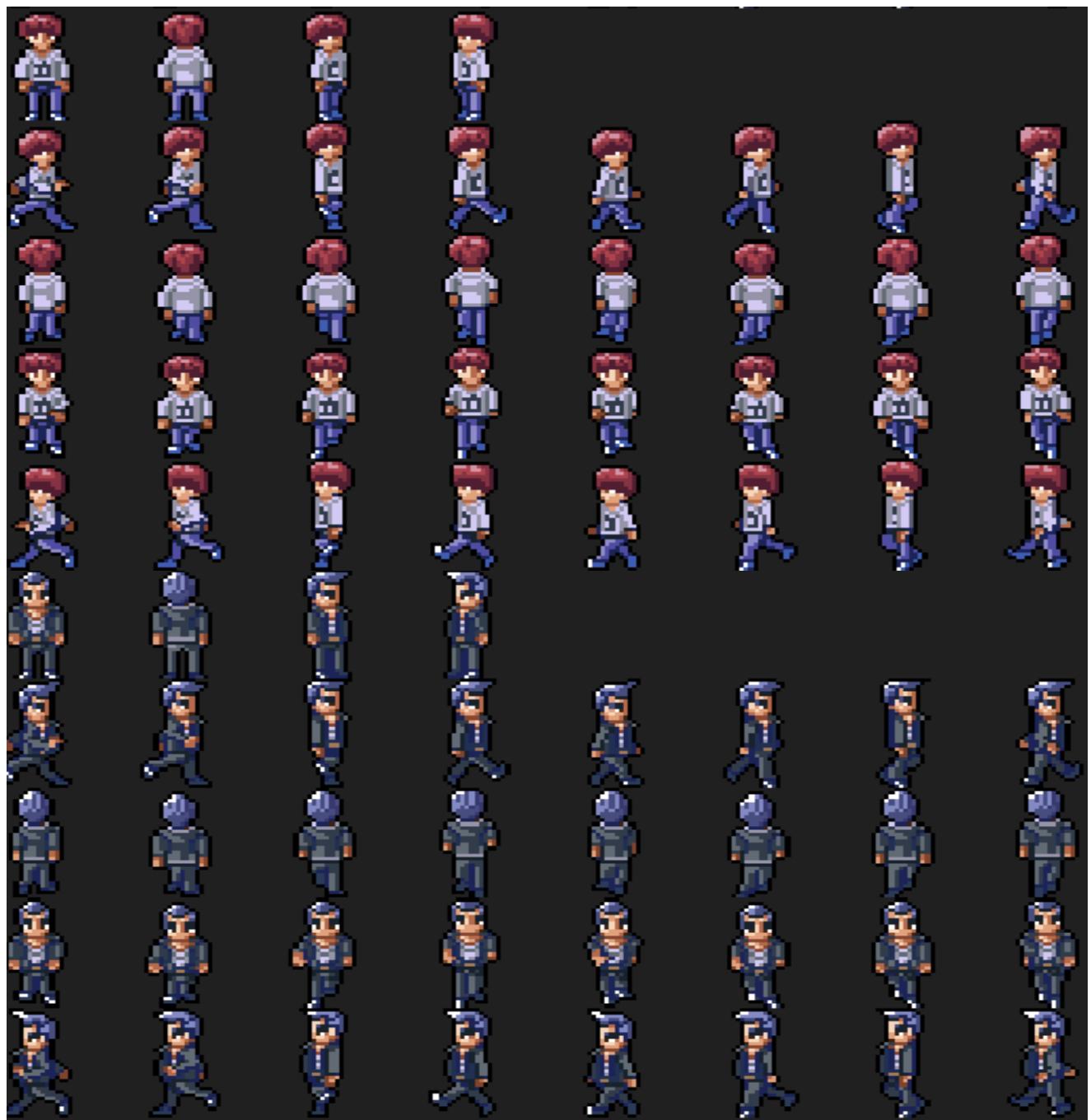


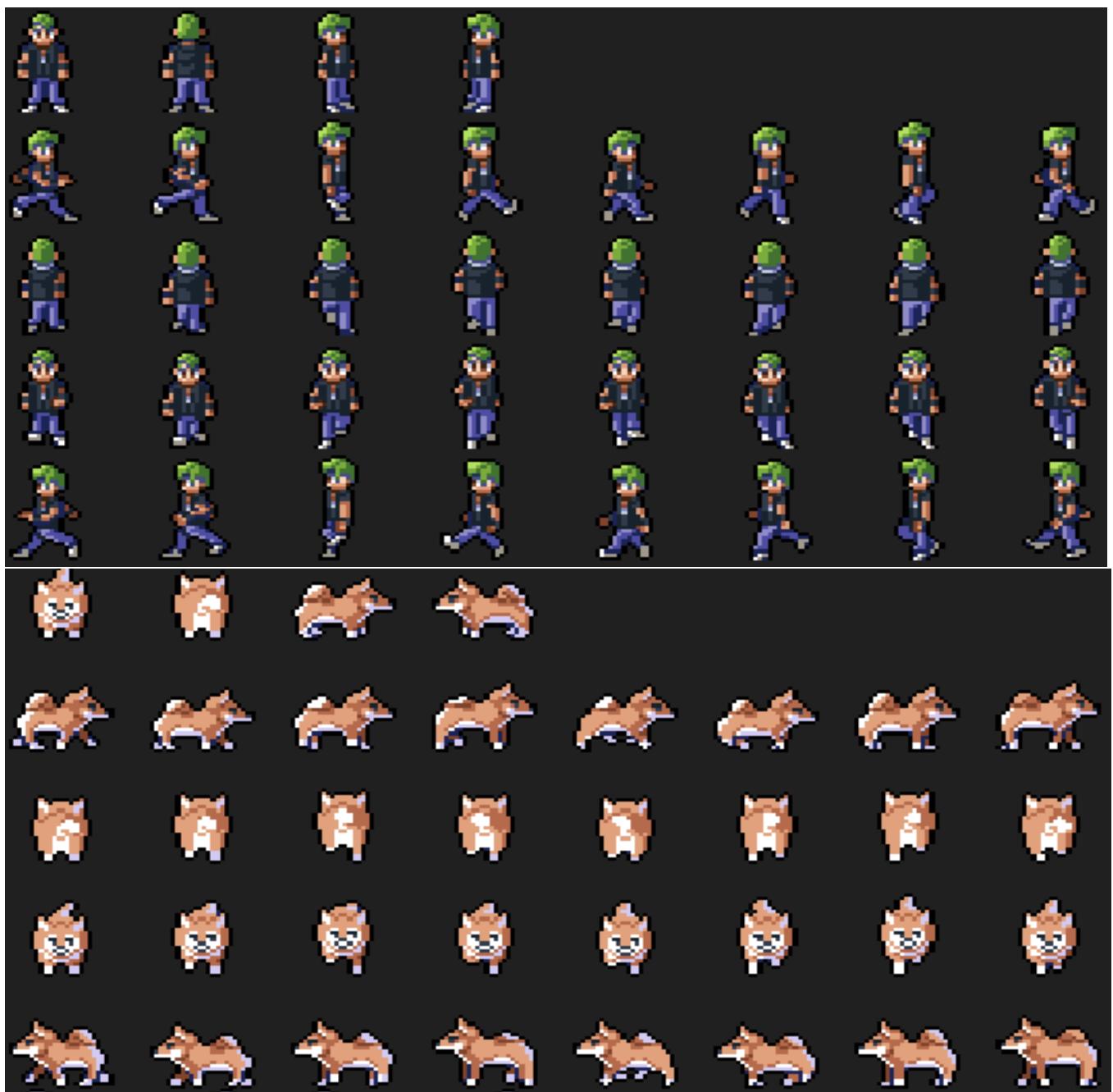












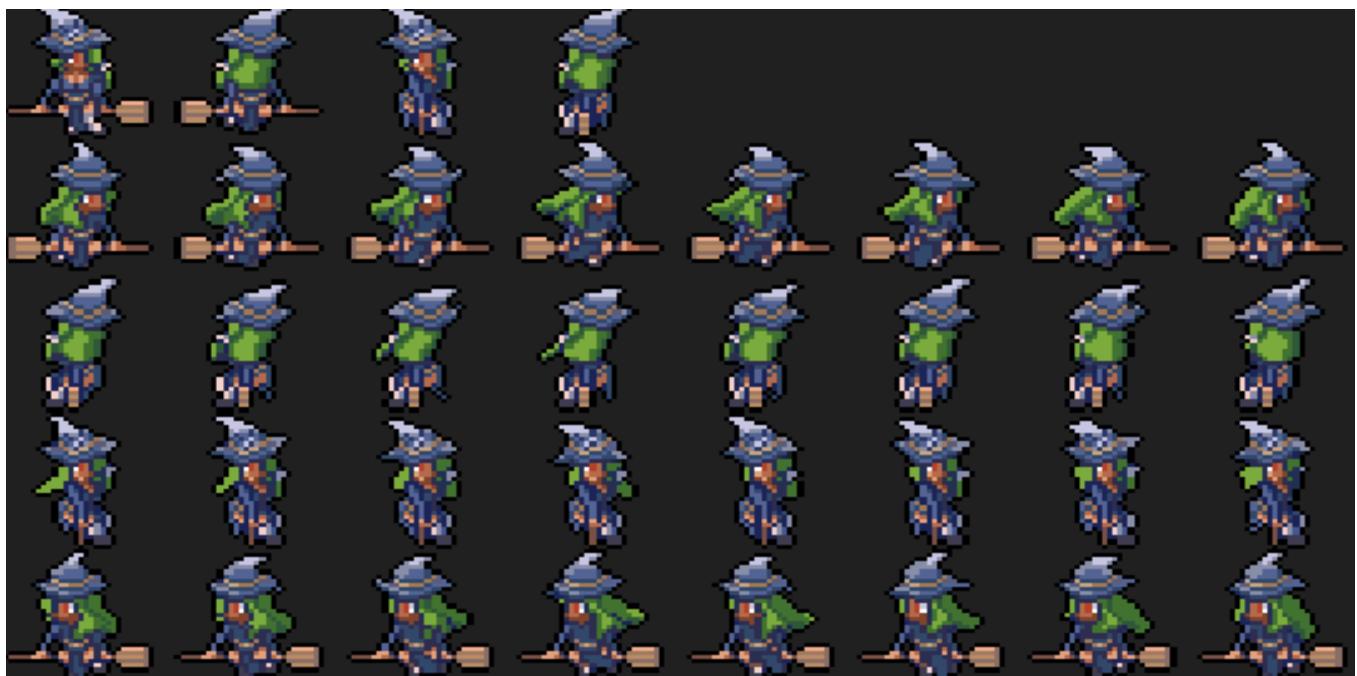


Figure 27: The Japan Collection: JRPG Characters Pack by Gutty Kreum

Item Icons

- The Japan Collection: JRPG Characters Pack by Gutty Kreum
- <https://assetstore.unity.com/packages/2d/characters/the-japan-collection-jrpg-characters-pack-201028>

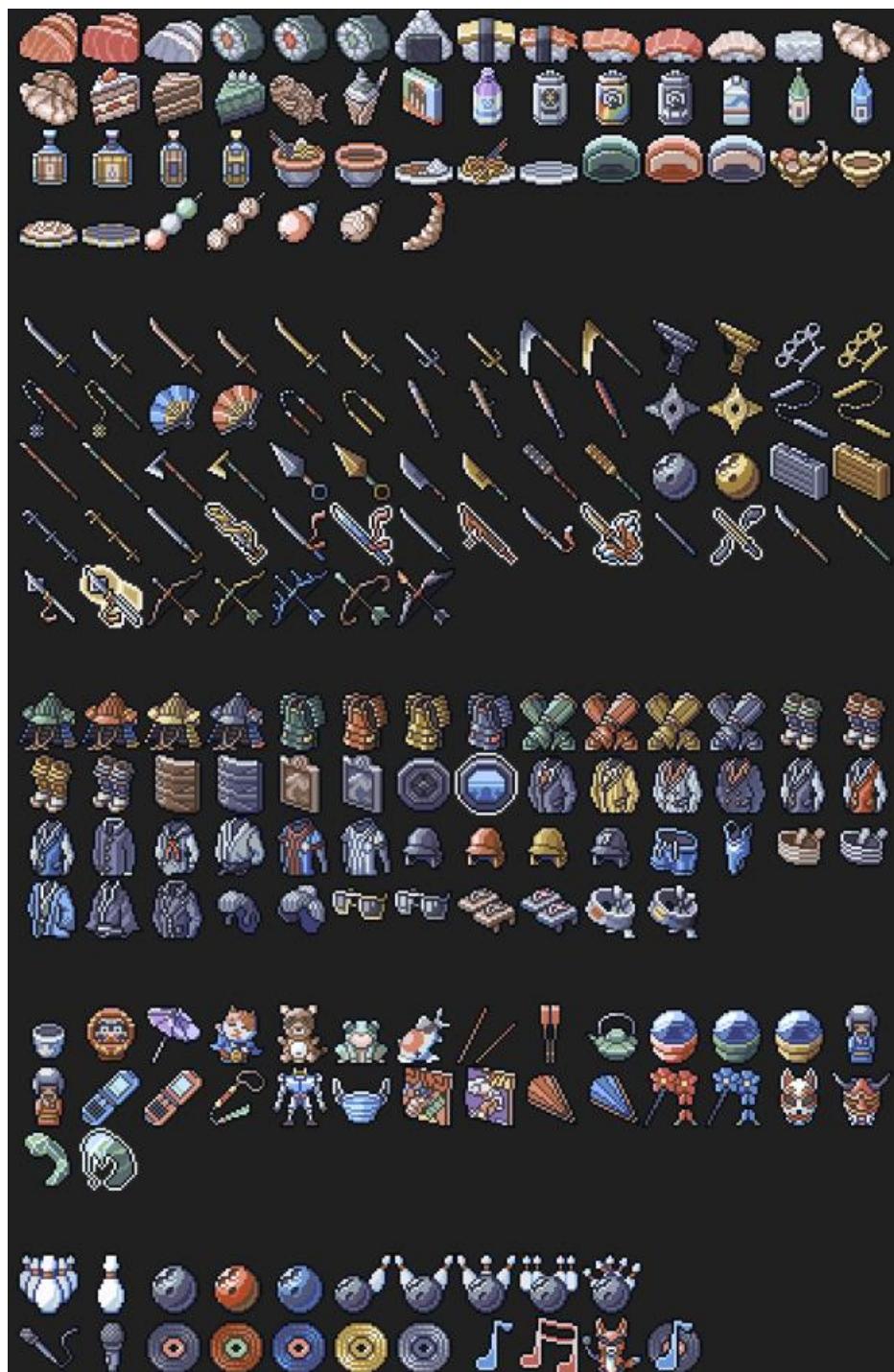


Figure 28: The Japan Collection: Icons by Gutty Kreum

Port City Art

- The Japan Collection: Dotonbori City Game Assets by Gutty Kreum
- <https://assetstore.unity.com/packages/2d/environments/the-japan-collection-dotonbori-city-game-assets-222217>



Figure 29: The Japan Collection: Dotonbori City Game Assets by Gutty Kreum

Suburb Art

- The Japan Collection: Kanagawa Game Assets by Gutty Kreum
- <https://assetstore.unity.com/packages/2d/environments/the-japan-collection-kanagawa-game-assets-204017>



Figure 30: The Japan Collection: Kanagawa Game Assets by Gutty Kreum

City Art

- The Japan Collection: Osaka City Game Assets by Gutty Kreum
- <https://assetstore.unity.com/packages/2d/environments/the-japan-collection-osaka-city-game-assets-197868>



Figure 31: The Japan Collection: Osaka City Game Assets by Gutty Kreum

Player Apartment Art

- The Japan Collection: Interior Essentials Game Assets by Gutty Kreum
- <https://assetstore.unity.com/packages/2d/environments/the-japan-collection-interior-essentials-game-assets-215225>



Figure 32: The Japan Collection: Interior Essentials Game Assets by Gutty Kreum

Office Art

- The Japan Collection: Office Interior Game Assets by Gutty Kreum
- <https://assetstore.unity.com/packages/2d/environments/the-japan-collection-office-interior-game-assets-215356>

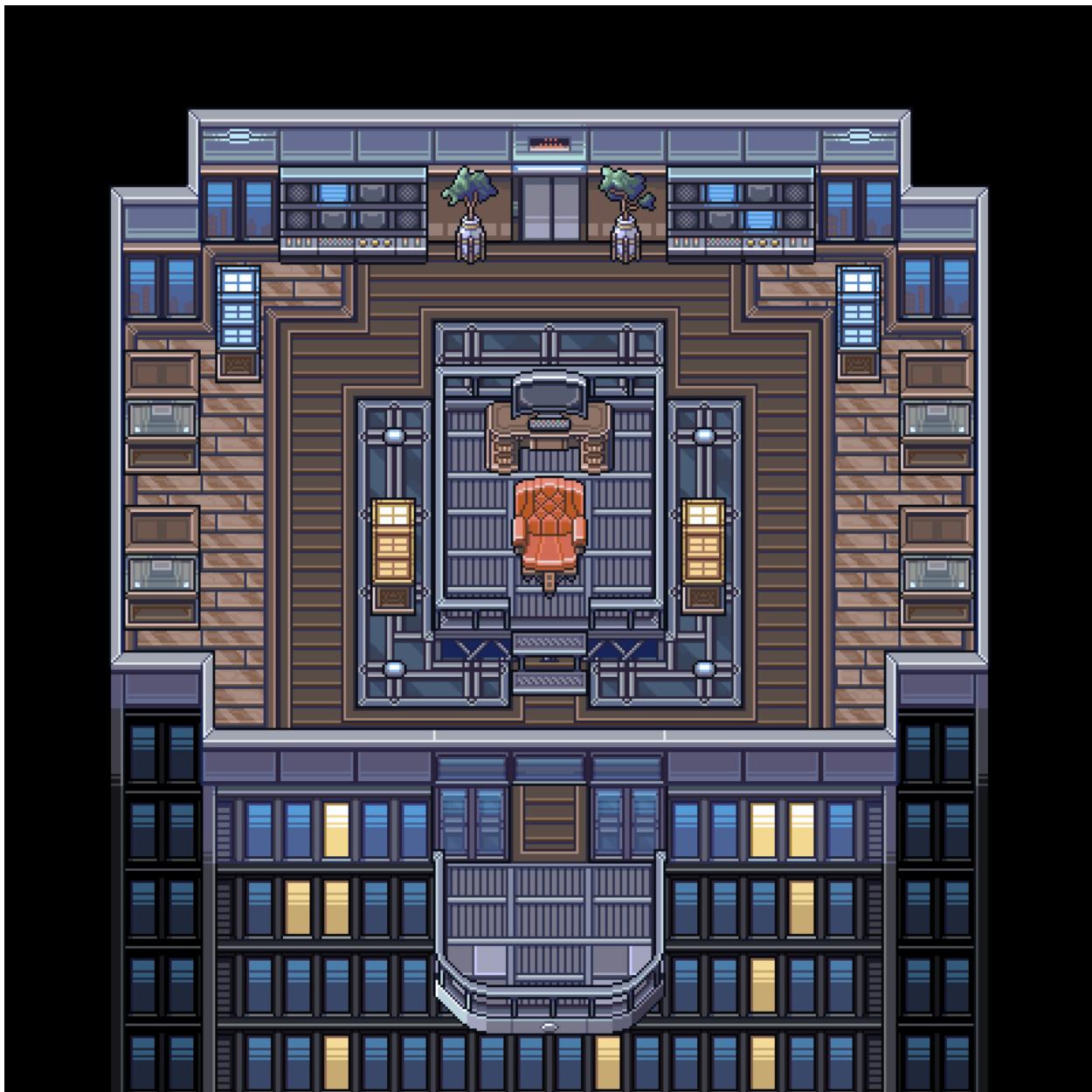


Figure 33: The Japan Collection: Office Interior Game Assets by Gutty Kreum

UI Assets

Pixel UI

- The UI was purchased from the Unity Asset store to assist us in creating the UI.
- Is created and maintained by PixelSoft Games.
- This component comes with many different prefabs like buttons, windows, and other premade objects.
- They are highly customizable which suited our needs and are able to make the game feel cohesive.

<https://assetstore.unity.com/packages/2d/gui/pixel-ui-128440>



Figure 34: Window, slider and button examples from the Pixel UI Package

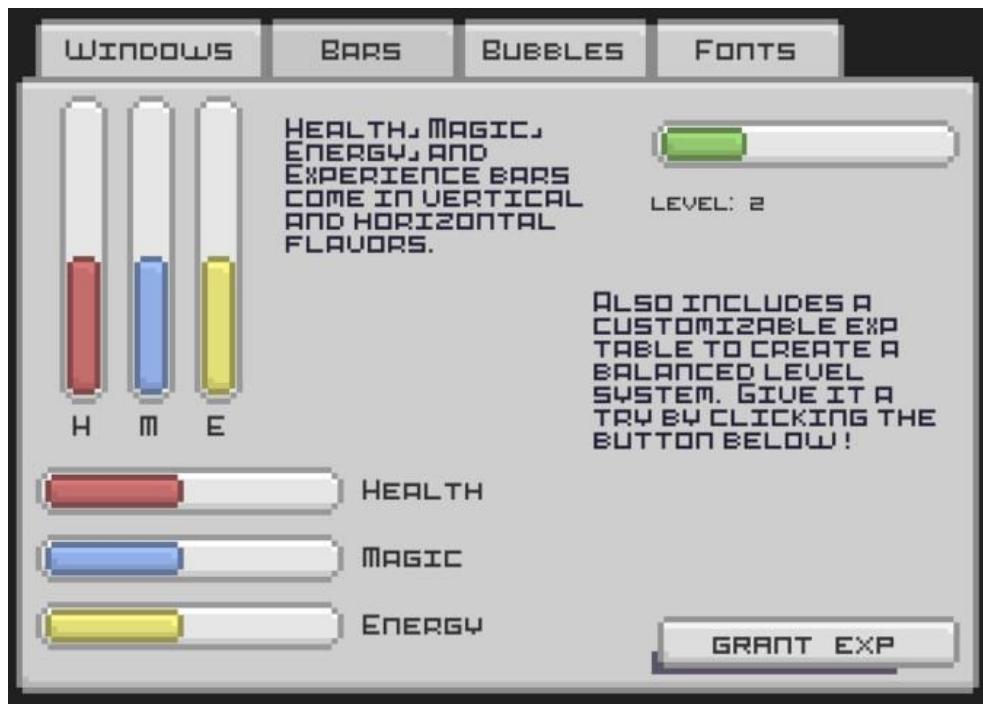


Figure 35: Bars and Window examples from Pixel UI



Figure 36: Text fonts from Pixel UI

Super Pixel Skill Icons

- Skill Tree assets created by unTied Games
- <https://untiedgames.itch.io/super-pixel-skill-icons-pack-1>



Figure 37: Super Pixel Skill Icons Pack 1 Header

Sound Assets

16-Bit JRPG Music Pack by Alan Catz

- This album will be used for games soundtrack.
- 30 loopable tracks and over 31 minutes of authentic 16-bit music.
- It was created by Alan Catz and sold on itch.io.
- <https://alan-catz.itch.io/16-bit-jrpg-music-pack>



Figure 38: Album cover to the 16-Bit JRPG Music Pack

Yal's Sound Effect Pack by Yal

- This package will be used for any sound effects the game may use.
- This resource pack contains three separate collections with 744 retro-style sound effects that can be used for a variety of games.
- <https://yaru.itch.io/retro-sound-effect-pack-1>

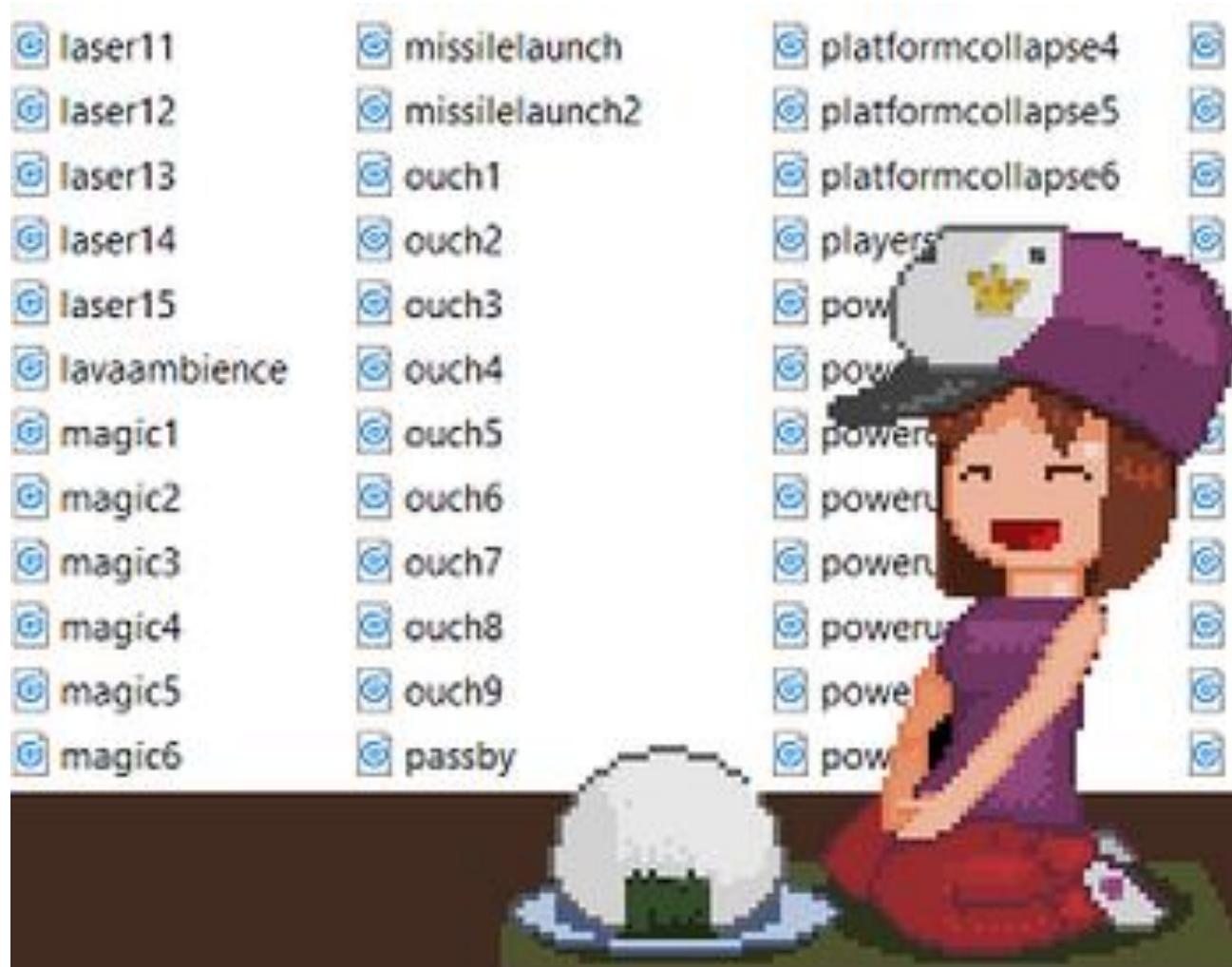


Figure 39: Album cover for Yal's Sound Effect Pack

Testing

Internal Playtest

Before releasing the game for external testing, our development team conducted thorough internal playtests to ensure a smooth and enjoyable experience for our testers. During these internal tests, we encountered numerous bugs and issues that required attention. One of the most significant issues was the inability to build the project in Unity, caused by an excessive number of game objects rendering in the scene. To resolve this, we adjusted the in-game lighting, reducing its performance impact. Additionally, we discovered that several items and skills were not applying their intended statistics, leading to unintended gameplay outcomes.

As many game developers know, it can feel like your game is never truly ready for testing, but we believe that it is crucial to gather feedback from players. Therefore, we went ahead and conducted an alpha test with family and friends. This allowed us to gather valuable insights and observations from a broader range of players, helping us fine-tune the game and address any remaining issues before moving on to the next stage of development.

Alpha Playtest

An alpha test was completed once our internal playtest was complete. To distribute the alpha test and give the players an understanding of game mechanics we created a wiki page that included the download links, instructions, and many important game mechanics and keybinds player would need to test the game. We also included small GIF's to quickly display certain mechanics. The objective of this alpha test was to find bugs and balance the many mechanics in the game. We also provided two different feedback forms, the first being a quick bug report form to report any bugs. The second was feedback survey to be only filled out once the test was completed. We also implemented Unity's cloud diagnostic crash and exception reporting system. This allowed us to gather any crash reports and logs before the crash occurred.

Bug Report Forms

Package Runner Bug Report

Please fill out the form below to address any issues with Package Runner.
Do not use this form for general feedback or suggestions; please use the Feedback Form for this.

izrvnar@gmail.com Switch account 

 Not shared

* Indicates required question

On which platform (device/operating system) were you playing Package Runner *

Windows (Microsoft)
 Mac (Apple)

Please select a category for the issue. *

Choose 

Provides a brief summary of the issue. Please be concise. *

Your answer

Please explain how to reproduce the error; be as detailed as possible. *

Your answer

Submit **Clear form**

Figure 40: Bug Report Form

Feedback Survey

Package Runner Feedback Survey

Feedback form for the Package Runner alpha testing.

Do not address any bugs or related issues on this form; please use the Bug Report form for this.

izrvnar@gmail.com [Switch account](#) 

 Not shared

* Indicates required question

How would you rate your level of experience in video games? *

1 2 3 4 5

Inexperienced Experienced

Are you familiar with the rogue-like/rogue-lite genre of games? *

Yes

No

Figure 41: Feedback Survey Page #1

Core Mechanics

Please share your feedback regarding the game's core mechanics.

Was the flow of the game clear and easy to understand? *

Yes
 No

How was the length of the Day-Night Cycle? *

1 2 3 4 5
 Too Short Too Long

What was the difficulty of managing your Endurance meter, to avoid passing out? *

1 2 3 4 5
 Easy Difficult

What was the difficulty of managing your money so you can pay your rent at the end of each day? *

1 2 3 4 5
 Easy Difficult

(Optional) Elaborate on any of your answers for this section.

testing

Figure 42: Feedback Survey Page #2

Map

Please share your feedback regarding the map (Play Area).

What is your overall impression of the map? *

1 2 3 4 5

Poor Excellent

How was the overall atmosphere of the map? *

1 2 3 4 5

Poor Excellent

Was it easy to navigate through the map? *

Yes
 No

Was the mini-map feature helpful in finding your way around the map? *

Yes
 No

Were the shortcuts, represented by open manholes and unlocked via the Skill Tree, helpful in navigating through the map? *

Yes
 No

Figure 43: Feedback Survey Page #3

Delivery/Theft

Please share your feedback regarding the Delivery and Theft portions of the game.

Did you enjoy delivering packages in order to collect money and occasional items? *

- Yes
- No

What was the difficulty of delivering packages to specific drop off points? *



Did you enjoy being able to steal the packages that you delivered that day for items? *

- Yes
- No

What was the difficulty of stealing packages that you delivered that day? *



Figure 44: Feedback Survey Page #4

Inventory/Items

Please share your feedback regarding the inventory system and items.

Did you enjoy collecting items that you could either equip for stat * boosts or sell for money?

- Yes
- No

Was the inventory system easy to understand? *



How was the distribution of items? *



Was it helpful to be able to buy items from the store during the day? *

- Yes
- No

Figure 45: Feedback Survey Page #5

Skills/Skill Tree

Please share your feedback regarding the skill tree.

Did you enjoy purchasing Skill Tree skills for permanent upgrades * to your character?

- Yes
- No

Was the Skill Tree easy to understand? *

- Yes
- No

How was the overall balance of Skill Tree nodes? *

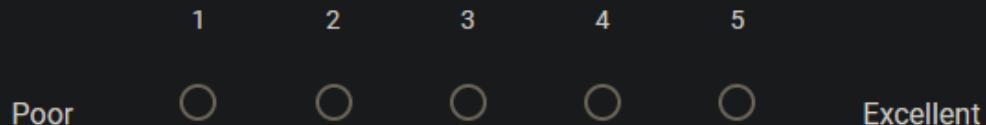


Figure 46:Feedback Survey Page #6

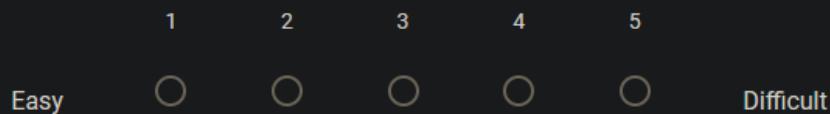
NPCs

Please share your feedback regarding the NPCs (Non-Player Characters).

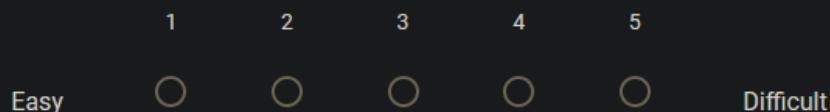
Were the rolls of each NPC type (Residents, Cops, Shopkeeper and Security Cameras) easy to understand? *

- Yes
- No

What was the difficulty of avoiding NPCs (Non-Player Characters) * during the night portion?



What was the difficulty of avoiding cops after being detected by them? *



What was the difficulty level regarding your Threat Level and its effect on NPCs detection range? *



Figure 47:Feedback Survey Page #7

UI Elements

Please share your feedback regarding the UI (User Interface).

Were the UI Elements on the main screen easy to understand? *

- Yes
- No

Was the text present throughout the game legible and easy to read? *

- Yes
- No

Was it helpful to have tooltip explanations of the items and slots * in your inventory, seen by hovering your mouse over the item/slot?

- Yes
- No

Was the end of day interface helpful in showing your progress for * that day?

- Yes
- No

Figure 48: Feedback Survey Page #8

Overall Impression

Please share your feedback regarding your overall impression of Package Runner.

What is your overall satisfaction level with Package Runner? *

1	2	3	4	5	
Poor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Excellent

(Optional) Is there any other feedback that was not covered in this survey that you would like to include?

This is a fantastic game (no bias) |

Back

Submit

Clear form

Figure 49: Feedback Survey Page #9

Project Package Runner Alpha Test

⌚ Time Created April 4, 2023 6:09 AM
↗ Class Empty

DOWNLOAD LINK FOR WINDOWS

Unzip the entire folder and run the exe

DOWNLOAD LINK FOR MAC

Project Package Runner Alpha Test

Important Links

- ▶ Bug Report Form
- ▶ Feedback Survey

Table of Contents

- Introduction
- Gameplay Overview
- Core Mechanics
 - Day Night Cycle
 - Delivery
 - Theft
 - NPC's
 - Skill Tree
 - Inventory System
 - Shop
 - Items
 - Player Stats
- Keybinds

TLDR

Balance package deliveries and theft to pay your rent. During the day, deliver packages, set up theft spots, and buy from the shop. At night, steal delivered packages while avoiding detection by NPCs

Figure 50: An image from the PPR wiki page

NPC Detection

- There are three different kinds of NPCs in the game: civilians, sentry, and police officers.
- Randomly generated NPCs will be placed around the map, primarily used during the night phase where a detection radius appears around them.
- The player must maneuver in a way to stay out of the detection, and if in the radius for longer than X seconds, the threat score goes up by a default percentage and the detection radius increases.
- NPC's do not have the ability to end the player's game directly.
- Sentry and civilian behave the exact same. Only difference is sentry's do not move. Rather placed as security cameras around the map.
- During the day, the NPC's radius isn't active, and the player is able to deliver packages without having to worry about this mechanic.



- Police officers are a different NPC that can end the player's game if caught.
- The number of police officers on patrol is directly correlated to the player's threat level. The higher the threat level, the more police officers are on the map patrolling during the night.
- Once detected the player has the opportunity to lose the cops but if caught again the game ends,

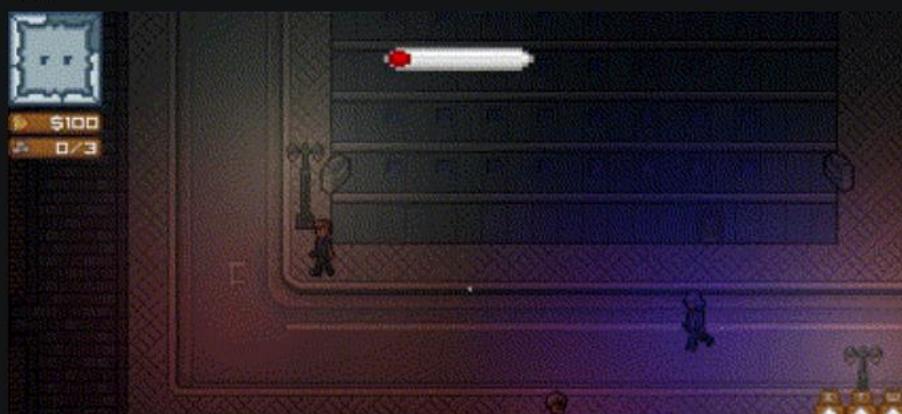


Figure 51: Another image from the PPR wiki page

Unity Cloud Crash Diagnostic System

Crash and Exception Reporting Add integration

Previous day reports (1)
94 of 10000 total
 0.94%

Subscription type: Plus/Pro/Enterprise
Cloud Diagnostics - Plus/Pro/Enterprise with Unity Pro or Plus includes up to 10000 reports per day.

Total native crashes (1) 22	Users affected 6	Total exceptions (1) 63301	Users affected 7
--	----------------------------	---	----------------------------

[Add filter](#) Tag (1) × [Clear](#) [Apply](#)

Occurrences [Delete reports](#)

Apr 11 2023 - Apr 18 2023 ×

Crashes Exceptions

Problems

View crash and exception details below. To close an issue, tag it as closed.

#	Details	Identifier	Last occurrence	Impacted users	Type	Tags
37575	NullReferenceException: Object reference not set... DetectionRange.UpdateLightRadius () (at Assets/Scripts/N...	330e336b	3 days ago	3	Exception	⋮
2860	NullReferenceException: Object reference not set... SoundManager.ResetMusicFade () (at Assets/Scripts/Soun...	5c81dc9b	about 12 hours ago	2	Exception	⋮
2756	NullReferenceException: Object reference not set... DayNightManager.OpenReport () (at Assets/Scripts/DayNl...	96bb1901	1 day ago	3	Exception	⋮
2481	<i>WindowsPlayer "DESKTOP-FBD2PNL"</i> Null...	0451c3e2	about 11 hours ago	1	Exception	⋮
2481	NullReferenceException LightManager.UpdateLocalLights () (at C:/Users/zrvn/Desktop...	98561e21	about 11 hours ago	1	Exception	⋮
2111	UnassignedReferenceException: The variable arr... UnityEngine.SpriteRenderer.set_color (UnityEngine.Color v...	d37c6ef6	1 day ago	1	Exception	⋮
1869	NullReferenceException: Object reference not set... PlayerController.FixedUpdate () (at Assets/Scripts/Player/P...	7670be05	1 day ago	3	Exception	⋮
1869	NullReferenceException: Object reference not set... LightManager.UpdateGlobalLights () (at Assets/Scripts/Lig...	8fa57550	1 day ago	3	Exception	⋮
1563	NullReferenceException: Object reference not set... PlayerController.MovePlayerAfterFaint () (at Assets/Scripts...	b82e16d1	1 day ago	3	Exception	⋮
1389	<i>WindowsPlayer "DESKTOP-FBD2PNL"</i> Null...	4e2fa9df	about 13 hours ago	1	Exception	⋮

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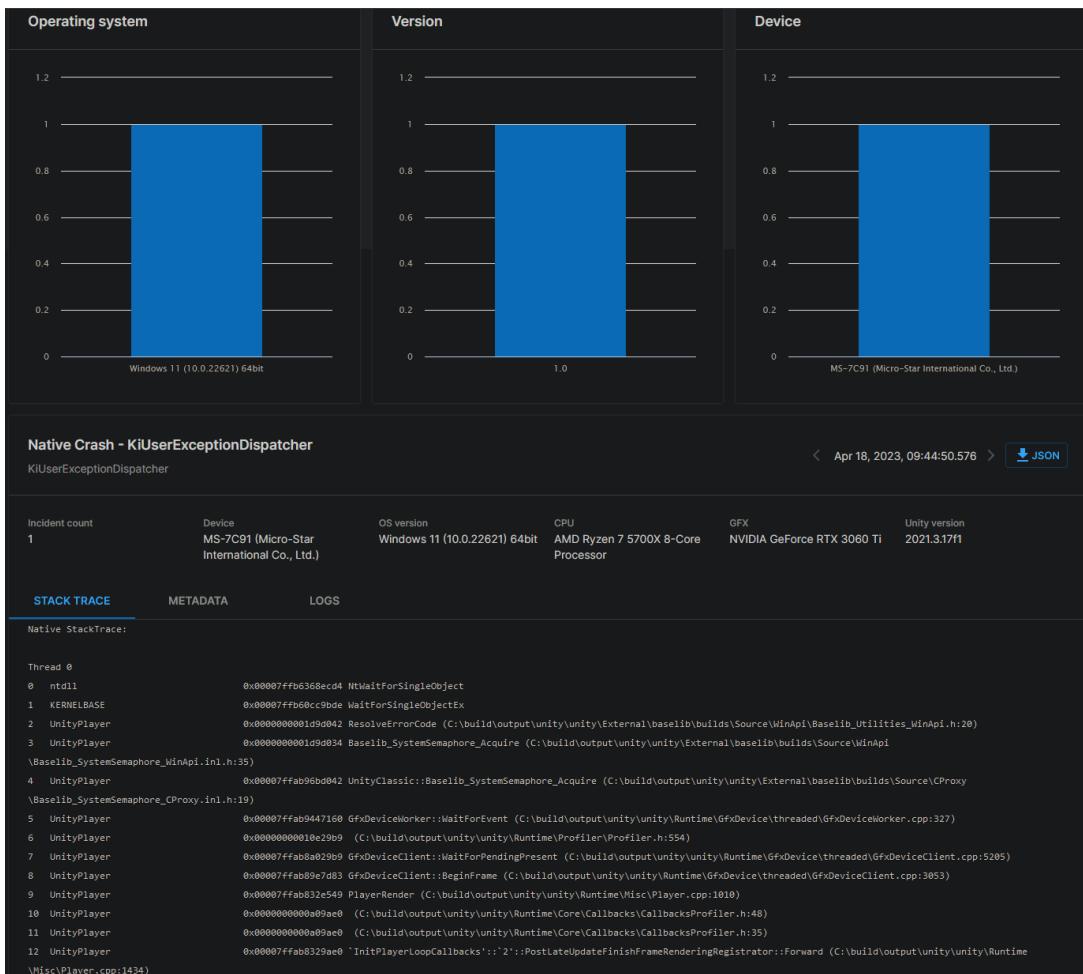


Figure 52: Unity Cloud Diagnostic Dashboard

Patch Notes

Path notes was the decided format for tracking bug fixes and explaining our rational on our decisions. As fellow gamers reading patch notes, and the developer's thought process has always been something we do, and we wanted to emulate that as much as possible.

Patch 0.0.2

Introduction

Welcome to Project Package Runner Patch Notes for version 0.0.2! In this update, we're introducing new features, balancing the gameplay, and fixing several bugs to enhance your gaming experience from all the feedback that was given in 0.0.1!

New Features

1. *Keybinds*: Players will now be able to bind any of the possible functions in the game.
 2. *Game Save*: Players will now be able to save their progress when continue onto the next day. Loaded games are lost when the game is lost so be careful!
 3. *Audio*: Audio has been added to the game! You'll find many actions and other new sounds across the world.
 4. *Performance Increase*: Made numerous changes to drastically improve performance. Ensuring only one camera is rendering at a time, reducing shadows, and changing lighting effects saw a 20% reduction in CPU usage.
 5. *Button prompt*: When around specific mechanics a button prompt appears with instructions on what keybinds to.
-

Gameplay Balance Changes

- Number of Cops
 - Max number of cops went from 7-14.
 - We felt max threat level wasn't reflecting the number of cops on the map.
 - Rent Balance
 - Adjusted scale factor for increased rent from 50% → 20%.
 - Around day 4 it became nearly impossible to progress pass.
 - Package Respawn
 - Adjusted package respawn time from 60 seconds → 30 seconds.
 - Players were waiting around too long to collect a package.
-

Bug Fixes

- Fixed an issue where players could get stuck in certain areas of the map.
 - Fixed bugs where left click wouldn't set and the "I" button could be set twice.
 - Connected previously mouse-only actions (sleeping, stealing package) with the interact keybind, now these actions can be done on the keyboard without clicking the button.
 - Changed "Exit" button to say "Quit" instead.
 - Fixed item removal to update weight totals when an item is removed from the inventory. Fixed item removal to properly unequip an item if it is equipped.
 - Updated package asset on delivery points
-

Quality of Life Improvements

1. Improved UI readability with font and color adjustments.
 2. Added an option to customize key bindings in the settings menu.
 3. Default keybind for map has been changed to tab.
 4. Default keybind for inventory has been changed to E
 5. Default keybind for the skill tree has been changed to Q.
-

Closing Notes

Thank you for playing Project Package Runner! As always, we appreciate your feedback and support. We will continue to work on improving the game and bringing you exciting new content. Don't forget to fill in our feedback form and share your thoughts about this patch.

See you in-game!

The PPR Team

Patch 0.0.3

Introduction

Welcome to Project Package Runner Patch Notes for version 0.0.3! In this patch, we've focused on enhancing your gaming experience with major visual improvements, overhauled the rent mechanic, and a variety of quality-of-life enhancements. Our talented artist has been hard at work revamping the game's visuals, creating a more immersive and aesthetically pleasing experience. Lastly, we've incorporated numerous qualities of life updates, streamlining the gameplay, and making it more enjoyable than ever before. We can't wait for you to dive in and experience these exciting changes!

New Features

1. *Visual Improvements:* Players will notice many more visual improvements with animations and UI changes.
 2. *Rent Overhaul:* Players will now be able to save their progress when continue onto the next day. Loaded games are lost when the game is lost so be careful!
 3. *Audio Adjustments:* We heard your feedback loud and clear! We added sound fades on transitions and changed many of the sounds to be more tasteful.
-

Gameplay Balance Changes

- Price Overhaul
 - Many of our skills and items cost too much and have now been reduced.
 - Rent Balance
 - Although rent only increases every 3rd day it has become a bit too easy early game. Rent increase 50% -> 100%.
 - Players were hoarding too much money early game which resulted in an unbalanced experience.
 - Undelivered package penalty removed.
 - Many players were reporting that the penalty was too severe for undelivered packages. So rather than reduce the amount we decided to remove the penalty completely.
 - It's never a good feeling being punished for playing the game so rather the package just becomes deadweight until the end of the night and gets removed from the inventory without package.
 - Players were also abusing this mechanic to get a heavily discounted item, as the first undelivered package penalty was only 50\$.
-

Bug Fixes

- Added indicators on the map for opening shortcuts. Also adjusted the scaling of all map points to be easier on the eyes by scaling in and out.
 - Fixed bugs where left click wouldn't set and the "I" button could be set twice.
 - Pinned UI elements to corners of screen, which fixes aspect ratio issues. Also swapped positions of Weight and Threat bars.
 - Fixed item removal to update weight totals when an item is removed from the inventory. Fixed item removal to properly unequip an item if it is equipped.
-

Quality of Life Improvements

1. Added question mark and exclamation mark indicators over NPC's when detected.
 2. Added bobbing arrows in front of enterable buildings to indicate their entrances.
 3. Added icons to UI bars for endurance, weight, and threat. Also reorganized the order.
 4. Fixed volume of shortcut sound effect, changed unlock skill sound effect.
-

Closing Notes

Thank you for playing Project Package Runner! As always, we appreciate your feedback and support. We will continue to work on improving the game and bringing you exciting new content. Don't forget to fill in our feedback form and share your thoughts about this patch.

See you in-game!

The PPR Team

User Documentation

Project Package Runner Wiki

Important Links

Bug Report Form

- <https://docs.google.com/forms/d/e/1FAIpQLSfqNX3ZchJ-ULnNhr0ERzEi26erokXbrsUmNGTrGXp63vfkg/viewform>

Feedback Survey

- https://docs.google.com/forms/d/e/1FAIpQLScPQNiU7SFA9ccCjlte9SfsF-LydFCVw03kD_5XS1V8a3bfw/viewform

Installation Guide

Go to our Wiki page (<https://www.notion.so/Project-Package-Runner-Alpha-Test-83f5fea52ab144f39b527f40aaa35a45>) to find our download link. Select the system that you are downloading the game for, click on the link to that system, and download all its contents from Google Drive.

Find the zipped file PPR_Build_1.0.zip in your downloads folder, right-click on the file, and select “Extract All...”. In the window that pops up, select a destination to extract the contents of the zipped file, and click “Extract”. Note the destination that you extracted to.

Find the folder in the destination that you selected, called “PPR_Build_1.0”, double-click to open the folder, then double click the folder of the same name within that. Find the file named “ProjectPackageRunner.exe” and double click it to begin the game!

Table of Contents

Introduction

- Gameplay Overview
- Core Mechanics
 - Day Night Cycle
 - Delivery
 - Theft
 - NPC's
 - Skill Tree
 - Inventory System
 - Shop
 - Items
 - Player Stats
- Keybinds

TLDR

Balance package deliveries and theft to pay your rent. During the day, deliver packages, set up theft spots, and buy from the shop. At night, steal delivered packages while avoiding detection by NPCs and police. Manage your inventory, upgrade your skills, and buy/sell items at the shop.

Key Points:

- Day/Night cycle with different activities and challenges.
- Deliver packages to get paid and set up theft spots.
- Steal packages at night and sell items on the black market.
- Avoid detection by NPCs and police officers.
- Use skill tree to customize your playstyle.
- Manage inventory and equip items for bonuses.
- Visit the shop to buy and sell items.

Introduction

Welcome to the alpha test of Project Package Runner, a top-down rogue-like game built in Unity. This is specifically for PC players using a mouse and keyboard.

Gameplay Overview

In Project Package Runner, the player must balance delivering packages or stealing them to pay their rent at the end of the day. The player must also balance other factors such as endurance and theft level for the game to continue.

Day Night Cycle

- The day night cycle affects what the player can do in the game depending on the time.
- During the day, the player must make deliveries to get paid and can set up theft spots for the night cycle. They can also only buy from the shop during the day, and NPCs cannot detect the player.
- At night, the player can steal any packages they had delivered during the day and sell any items on the black market. NPC detection radius is enabled, and the player's threat level increases if they spend enough time in the radius. This threat level decides how many police officers are patrolling the city, and if caught by police officers, the game ends.
- The player can end the night phase by returning to their apartment and resetting the cycle to the next day. An important check is made between the night and the next day to determine if the player has enough money to pay rent and utilities, regardless of other variables.
- The player takes a monetary penalty on the switch between day and night for any undelivered packages. They keep the package in their inventory to open.

Delivery

Players will need to deliver a certain number of packages per day to get paid. Here are some important points about the delivery system:

- Delivery points will be randomized throughout the map.
- The player gets paid per delivery completed.
- After certain milestones, players will also be gifted random items from the company.
- Any completed deliveries made that day persist into the night cycle, allowing the player to steal them.
- Initially, the player will need to complete 3 deliveries and can go back to their employer and continue making more deliveries.
- The only limitation on how many packages are delivered in a day is the player and how they balance their weight, routes, and other variables.
- To complete the delivery, the player will need to enter a "zone" on the map.
- Once delivered, the zone turns green, indicating a successful delivery.
- There are 100 delivery points across the map.
- Packages are picked up at work location on the mini map.

Theft

- Theft is a mechanic that can be completed during the night cycle.
- Any deliveries made that day are available to steal.
- Players need to maneuver around NPCs, home cameras, and police officers during the night to avoid getting caught.
- While stealing, the player has a random chance for their threat to increase.
- The player cannot fail stealing a package but rather just a matter of how much their threat score goes up.
- Players will need to open the packages to see what's inside them.
- Players then have a choice of either keeping the item or selling them on the black market.
- When approaching the zone, a steal button will appear, and the player will need to complete a long click to steal the package.

NPC Detection

- There are three different kinds of NPCs in the game: civilians, sentry, and police officers.
- Randomly generated NPCs will be placed around the map, primarily used during the night phase where a detection radius appears around them.
- The player must maneuver in a way to stay out of the detection, and if in the radius for longer than X seconds, the threat score goes up by a default percentage and the detection radius increases.
- NPC's do not have the ability to end the player's game directly.
- Sentry and civilian behave the exact same. The only difference is sentries do not move. Rather placed as security cameras around the map.
- During the day, the NPC's radius isn't active, and the player is able to deliver packages without having to worry about this mechanic.
- Police officers are a different NPC that can end the player's game if caught.
- The number of police officers on patrol is directly correlated to the player's threat level. The higher the threat level, the more police officers are on the map patrolling during the night.
- Once detected the player could lose the cops but if caught again the game ends.

Skill Tree

The Skill tree which players can use to spec out their character during each run, customizing the player experience. This allows players to tailor their character to their playstyle and preferences.

- The right side of the tree is designed to be geared towards a theft playstyle.
- The left side of the tree is designed to be geared towards a delivery playstyle.
- Can be purchased any time by pressing Q to open the tree or by visiting the terminal inside the shop.
- Players need to unlock the parent skill before they can progress to the next skill.
- Uses player money to buy.

Inventory System

Project Package Runner also includes a robust player inventory system with various items to ensure the main gameplay loop stays fresh and fun. Players can collect and use different items to help them complete their tasks and overcome obstacles.

- Players have two different inventory slots. One for equippable items and the other for basic inventory.
- When items are in the green slot any stats that the item has applies to the player.
- They are also safe from the item removal for the faint penalty.
- They also have no effect on weight when equipt.
- Just drag the item to the green slots to equipt an item.

Shop

The shop is a place where players can sell and buy items for their builds. During the day the players are only able to buy items. And during the night they can sell items to the shop keeper.

- During the day players buy items by either right clicking the item or by pressing Z on the keyboard
- During the night phase a shop keeper appears and the player can sell any items they have.
- Note they cannot be packages. Just open them before selling.

Items

In Project Package Runner, items are categorized into two main types: Packages and Goods. Each type serves specific purposes in the game and contributes to the gameplay experience.

1. **Packages:** Special items that players must deliver to designated locations. They can, however, open any undelivered packages or stolen packages at night to reveal the goods inside.
2. **Goods:** Usable items obtained from packages. Goods come in five rarity tiers (Common, Uncommon, Rare, Epic, and Legendary), which determine the chance of obtaining one from a package. Goods have two subtypes:
 - a. **Consumable:** One-time use items that are removed from the inventory after use. These include items with effects such as stamina regeneration.
 - b. **Equipable:** Items that provide stat upgrades when placed in an equipment slot.

Players can use Consumable Goods by right clicking the item or pressing the "X" key when the item is selected. All items have a buy price, sell price, and one of six weights (Weightless, Extra Light, Light, Medium, Heavy, Extra Heavy). The game features a total of 75 unique items, offering players various options to enhance their gameplay experience and strategize based on their playstyle.

Player Stats

Player stats are a crucial mechanic in Project Package Runner, affecting various other aspects of the game. The primary stats are speed, endurance, threat, money, weight, and additional secondary stats such as strength, salary, night vision, stealth, and luck.

1. **Speed:** Increases player movement but can be negatively impacted if the weight value becomes too high.
2. **Threat:** Threat can be generated by doing a variety of tasks. Stealing packages, getting caught in NPC detection ranges, and not delivering packages. Your threat level has a direct link to how many police officers are out on the map and their detection range. Threat goes down a small amount once a new day starts.
3. **Endurance:** Has a decay rate that decreases based on player movement, limiting the amount of movement they can perform in a single day. If endurance reaches zero, the player gets knocked out, placed back into the apartment, and loses any items outside of their active stash. Endurance resets at the beginning of each new day.
4. **Money:** Can be earned in various ways, such as making deliveries or selling stolen items on the black market. If the player is unable to pay rent at the end of each night cycle, the game ends. Money can be spent on purchasing items or permanent skills in the skill tree and to pay rent. Any leftover funds carry over into the next day.
5. **Weight:** Determines how many items the player can hold at one time. Each item has a weight, and once over certain thresholds, negative effects begin to occur, such as reduced movement speed.

Secondary stats include:

1. **Strength:** Determines the player's carrying capacity.
2. **Salary:** The amount players make per delivery.
3. **Night Vision:** Influences the player's range of vision during nighttime.
4. **Luck:** Improves the player's ability to gain more valuable items, from delivery rewards or nighttime theft.
5. **Stealth:** Allows the player to stay in the NPC detection radius longer. Instead of the default two seconds, players can increase this time without raising their threat level.

Keybinds

To play the game effectively, it is important to familiarize yourself with the keybinds. Here are the default keybinds for Project Package Runner:

- W, A, S, D: Movement
- Left mouse button: Interact
- Right mouse button: Use / Sell
- Tab: Open mini map
- E: Open inventory
- Q: Open Skill Tree
- Escape: Settings Menu where you can restart/exit the game

Credits

Art assets created by Gutty Kreum. These resources include:

- The Japanese Collection: Icons
(<https://guttykreum.itch.io/the-japan-collection-icons>)
- The Japanese Collection: Backgrounds
(<https://guttykreum.itch.io/the-japan-collection-backgrounds>)
- The Japanese Collection: Office Interior
(<https://guttykreum.itch.io/japanese-office-interior-game-assets>)
- The Japanese Collection: Dotonbori City
(<https://guttykreum.itch.io/dotonbori-city-game-assets>)
- The Japanese Collection: Interior Essentials
(<https://guttykreum.itch.io/japanese-interior-essentials>)
- The Japanese Collection: Kanagawa
(<https://guttykreum.itch.io/kanagawa-game-assets>)
- The Japanese Collection: JRPG Characters Pack
(<https://guttykreum.itch.io/jrpg-character-pack>)
- The Japanese Collection: Osaka
(<https://guttykreum.itch.io/osaka-city-game-assets>)

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UI Assets used is Pixel UI By Pixelsoft.
(<https://assetstore.unity.com/packages/2d/gui/pixel-ui-128440>)
No license available.

Skill Tree assets is Super Pixel Skill Icons By unTied Games
(<https://untiedgames.itch.io/super-pixel-skill-icons-pack-1>)
No license available.

Music Assets used is 16-bit JRPG Music bu Alan Catz
(<https://assetstore.unity.com/packages/audio/music/16-bit-jrpg-music-pack-234489>)
No license available

Sound Assets used is Yal's Sound Effect Pack
(<https://yaru.itch.io/retro-sound-effect-pack-1>)

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- *You may NOT transfer this license, or issue sub-licenses for the usage of the resources (or derivatives thereof) by third parties.*
- *I am not responsible for damage caused by using the resources. The resource pack has no warranty, including the implied warranties of merchantability and fitness for a particular purpose. Use at your own risk.*

Additional assets created by Nicholas James Xavier Orcsik

Appendix

Supporting Documentation

City Map Design



Figure 53: City Design Mockup

City Map Reference

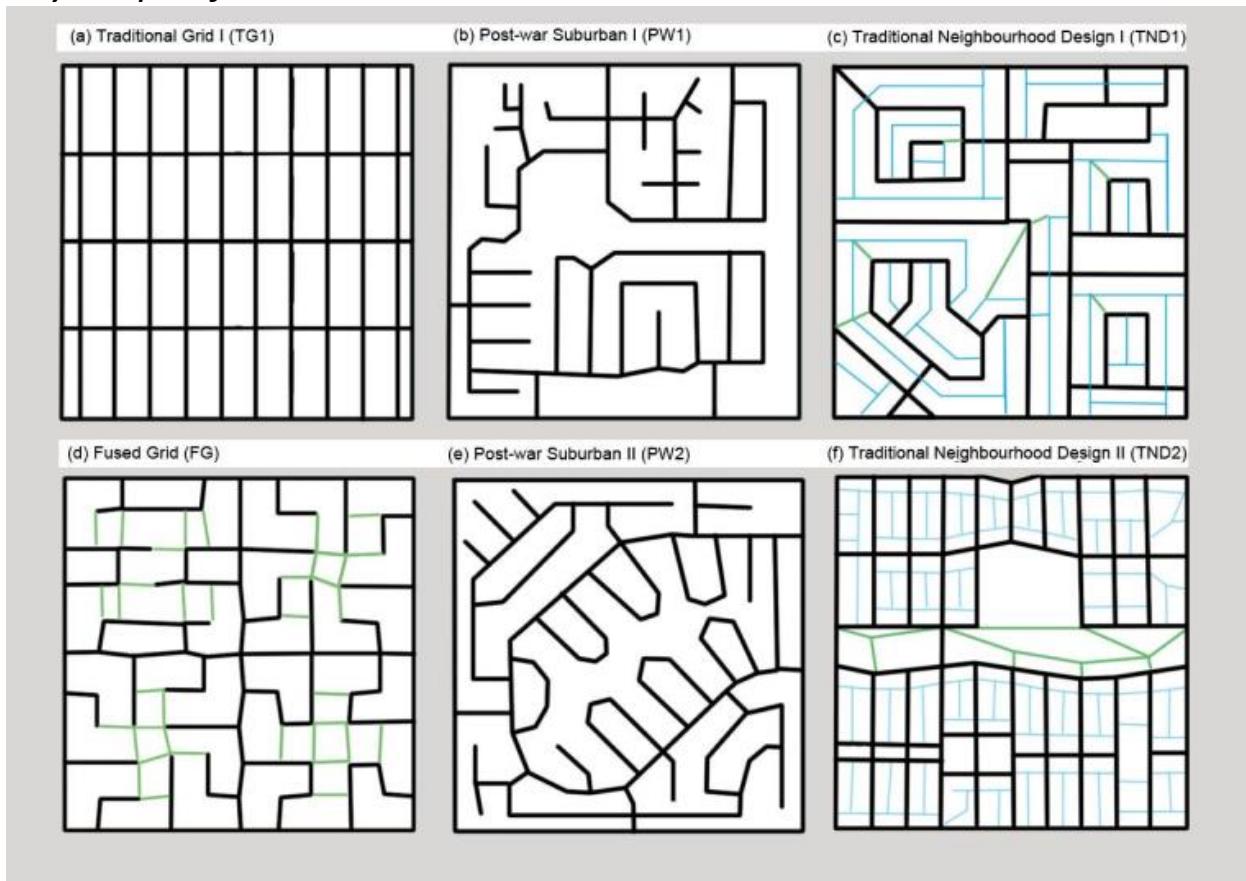


Figure 54: Referenced used to design the game city.

Inventory Low Fidelity Mock-up



- Click and drag to move items around
- WASD & Enter?/Arrow keys & Z? to highlight & move items



Figure 55: Initial mock-up of the inventory UI

Skill Tree Low Fidelity Mock-up

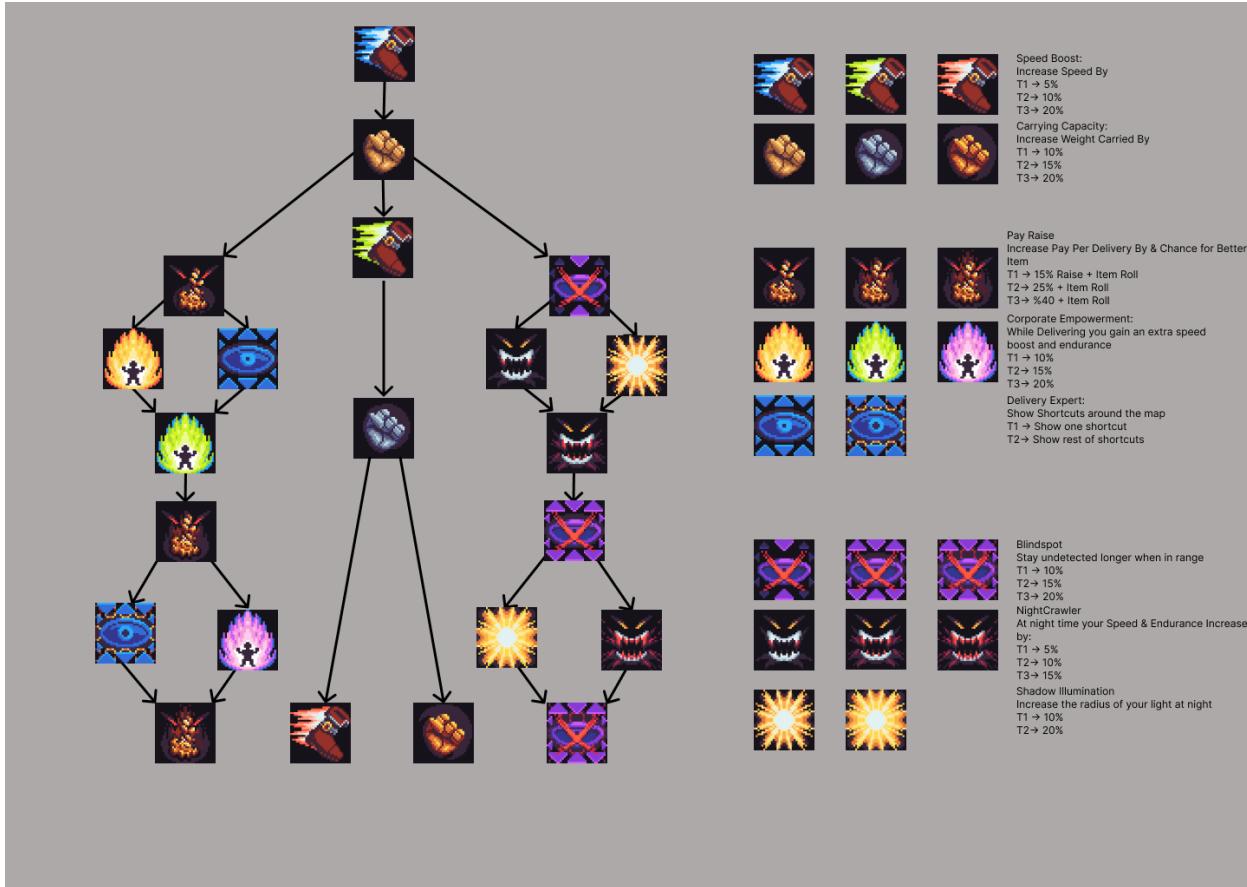


Figure 56: Initial mock-up of the skill tree

Item Creation Sheet

Item Name	Tooltip (Description)	Item Weight	Rarity	Buy price	Sale Price	Use	Equipable Stats
Sushi Grade Salmon	High Quality salmon intended for sushi dishes. Add 5% Endurance.	Extra Light	Uncommon	\$ 15	\$ 10	None	
California Roll	A sushi roll made with avocado, cucumber, and crab	Extra Light	Common	\$ 10	\$ 5	None	
Dumpling	Small piece of dough filled with meat and vegetables.	Extra Light	Common	\$ 10	\$ 5	None	
Cake	It's not a lie, it's just sugar and flour.	Light	Rare	\$ 30	\$ 20	None	
Energy Drink	Artificially fueling your performance since 1962.	Light	Uncommon	\$ 15	\$ 10	None	
Ramen	A hearty bowl of ramen that fills the void of not having a partner.	Light	Rare	\$ 20	\$ 15	None	
Shrimp Tempura	It's like eating a crunchy sea bug, but in a good way.	Extra Light	Epic	\$ 30	\$ 20	None	
Ice Cream Cone	We all scream for ice cream!	Light	Rare	\$ 20	\$ 15	None	
Beer	Makes everything better.	Light	Uncommon	\$ 25	\$ 20	None	
Whiskey	When beer isn't enough.	Medium	Rare	\$ 35	\$ 25	None	
Golden Sushi	Almost too pretty to eat, but not quite.	Light	Legendary	\$ 100	\$ 75	None	

Figure 57: Excel Sheet used to create all the items.

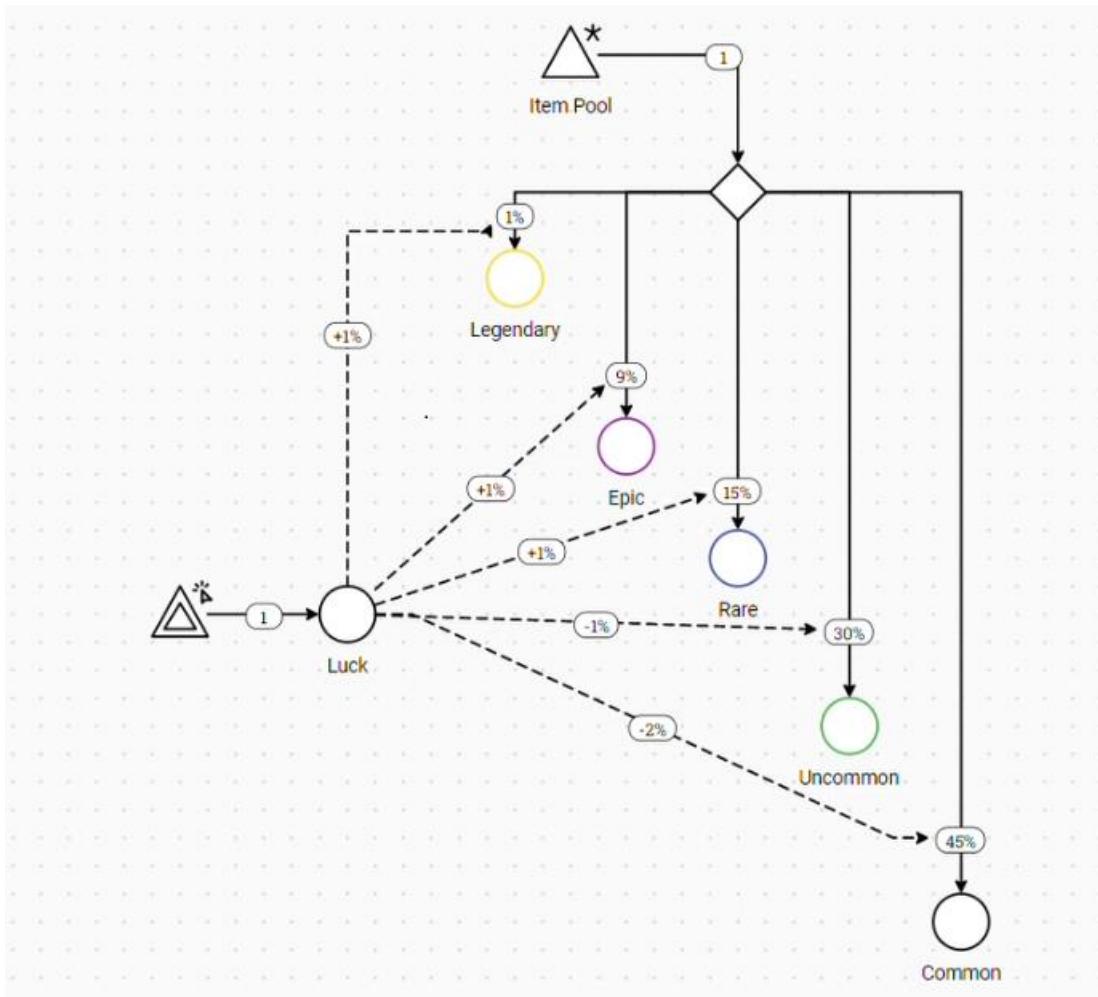
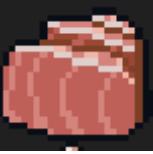
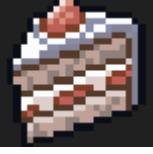
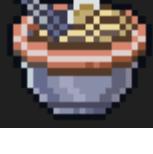
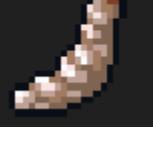


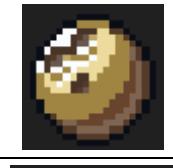
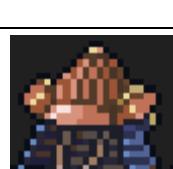
Figure 58: Machination for calculating rarity of items.

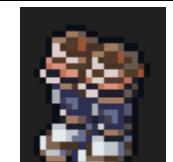
Item Chart

Name	Type	Icon	Description	Rarity	Weight	Buy	Sell	Effect
Sushi Grade Salmon	Consumable		Quality salmon intended for sushi dishes.	Common	Extra Light	\$25	\$10	Endurance 5% Duration 15s
California Roll	Consumable		A sushi roll made with avocado, cucumber and crab	Common	Extra Light	\$75	\$25	Strength 5% Duration 20s
Dumpling	Consumable		Small piece of dough filled with meat and vegetables	Common	Extra Light	\$75	\$25	Stealth 5% Duration 20s
Cake	Consumable		It's not a lie, its just sugar and flour.	Rare	Medium	\$250	\$150	Speed 15% Strength 10% Duration 30s
Energy Drink	Consumable		Artificially fueling your performance since 1962.	Uncommon	Light	\$75	\$50	Speed 5% Duration 20s
Raman	Consumable		A hearty bowl of raman that fills the void of not having a partner.	Rare	Light	\$250	\$150	Endurance 20% Duration 30s
Shrimp Tempura	Consumable		It's like eating a crunchy sea bug, but in a good way.	Epic	Extra Light	\$300	\$200	Speed 10% Nightvision 10% Stealth 10% Duration 45s

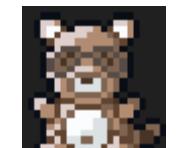
Name	Type	Icon	Description	Rarity	Weight	Buy	Sell	Effect
Ice Cream Cone	Consumable		We all scream for ice cream!	Rare	Light	\$200	\$100	Endurance 10% Speed 10% Duration 30s
Beer	Consumable		Makes Everything Better	Common	Light	\$100	\$50	Endurance 20% Speed - 10% Duration 25s
Whiskey	Consumable		When beer isn't enough	Uncommon	Light	\$100	\$50	Endurance 30% Speed - 10% Duration 30s
Golden Sushi	Consumable		Almost too pretty to eat, but not quite.	Legendary	Light	\$500	\$350	All Stats 10% Duration 60s
Scythe I	Equipment		Traditional tool for grass cutting and soul collecting.	Rare	Heavy	\$300	\$200	Stealth 10% Endurance 10%
Scythe II	Equipment		Because one blade isn't enough to reap what you sow.	Epic	Heavy	\$450	\$300	Stealth 20% Endurance 20%
Pistol I	Equipment		A .45, because a .46 doesn't exist.	Uncommon	Medium	\$150	\$100	Nightvision 10% Stealth - 10%

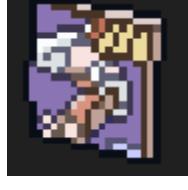
Name	Type	Icon	Description	Rarity	Weight	Buy	Sell	Effect
Pistol II	Equipment		Now they made a .46.	Epic	Medium	\$400	\$300	Nightvision 20% Stealth - 10%
Brass Knuckles I	Equipment		When you need to literally knock some sense into someone.	Common	Light	\$150	\$100	Strength 10% Stealth - 10%
Brass Knuckles II	Equipment		For when one set of knuckles just isn't brass enough.	Uncommon	Light	\$200	\$150	Strength 15% Stealth - 10%
Fan I	Equipment		For when you want to look cool and stay cool.	Common	Extra Light	\$75	\$50	Speed 5%
Fan II	Equipment		Your biggest.	Uncommon	Extra Light	\$100	\$75	Speed 10%
Shuriken I	Equipment		Because ninjas are cool.	Common	Extra Light	\$75	\$50	Stealth 5%
Shiriken II	Equipment		Ninjas play free. No really, we do.	Uncommon	Extra Light	\$125	\$75	Stealth 10%
Nunchucks I	Equipment		Remotes not included.	Rare	Medium	\$250	\$200	Nightvision 10% Endurance 10%

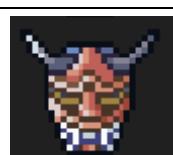
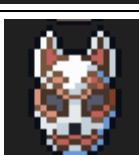
Name	Type	Icon	Description	Rarity	Weight	Buy	Sell	Effect
Nunchucks II	Equipment		Remotes still not included.	Epic	Medium	\$400	\$250	Nightvision 20% Endurance 20%
Kitchen Knife I	Equipment		Standard knife for cutting vegetables.	Uncommon	Light	\$150	\$100	Salary 10% Stealth - 10%
Kitchen Knife II	Equipment		Special knife for cutting expensive vegetables.	Rare	Light	\$200	\$125	Salary 10% Stealth - 5%
Bowling Ball I	Equipment		Spare!	Common	Extra Heavy	\$100	\$75	Luck 25%
Bowling Ball II	Equipment		Strike!	Uncommon	Extra Heavy	\$150	\$100	Luck 35%
Bowling Ball III	Equipment		Turkey!	Rare	Extra Heavy	\$250	\$150	Luck 50%
Helmet I	Equipment		Protects your noggin from bird droppings alike.	Uncommon	Medium	\$200	\$150	Stealth 15%
Helmet II	Equipment		Looks like it's fresh out of a forest. Maybe it'll help you blend in?	Rare	Medium	\$300	\$200	Stealth 20%
Helmet III	Equipment		Pain the town red with this flashy headgear.	Epic	Medium	\$450	\$250	Stealth 30%

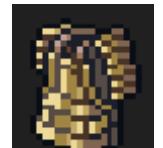
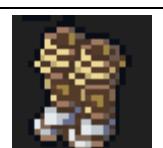
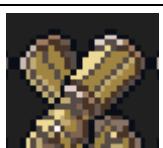
Name	Type	Icon	Description	Rarity	Weight	Buy	Sell	Effect
Gloves I	Equipment		A standard pair of gauntlets.	Uncommon	Medium	\$200	\$150	Strength 15%
Gloves II	Equipment		Fingerless for extra coolness.	Rare	Medium	\$300	\$200	Strength 20%
Gloves III	Equipment		Slightly torn, for that edgy look.	Epic	Medium	\$450	\$250	Strength 30%
Boots I	Equipment		A standard pair of boots.	Uncommon	Medium	\$200	\$150	Speed 15%
Boots II	Equipment		Green boots.	Rare	Medium	\$300	\$200	Speed 20%
Boots III	Equipment		For when you want to leave a trail of broken hearts and shattered glass behind you	Epic	Medium	\$350	\$250	Speed 30%
Chest I	Equipment		A standard chestplate.	Uncommon	Heavy	\$300	\$200	Endurance 20%

Name	Type	Icon	Description	Rarity	Weight	Buy	Sell	Effect
Chest II	Equipment		Form fitting, 'cause you've been working out.	Rare	Heavy	\$400	\$250	Endurance 30%
Chest III	Equipment		For when you want to make a bold statement and also be bulletproof.	Epic	Heavy	\$500	\$300	Endurance 40%
Suit I	Equipment		Lookin' good.	Uncommon	Extra Light	\$225	\$150	Salary 15%
Suit II	Equipment		Feelin' great.	Rare	Extra Light	\$350	\$200	Salary 20%
Suit III	Equipment		Like a million bucks.	Epic	Extra Light	\$500	\$250	Salary 30%
Wig I	Equipment		I think this is horse hair.	Common	Light	\$75	\$50	Stealth 5% Salary 5%
Wig II	Equipment		Looks like a raccoon nested on your head.	Common	Light	\$75	\$50	Stealth 5% Luck 5%
Sunglasses I	Equipment		It's dark, yet you're wearing sunglasses.	Common	Extra Light	\$100	\$50	Stealth 10% Nightvision -10%

Name	Type	Icon	Description	Rarity	Weight	Buy	Sell	Effect
Sunglasses II	Equipment		Hit it.	Uncommon	Extra Light	\$250	\$125	Stealth 20% Nightvision -10%
Geta I	Equipment		For the thief who wants to be light on their feet, but also make a statement.	Common	Light	\$75	\$50	Speed 5% Endurance 5%
Geta II	Equipment		Sleek and shiny, like your getaway car or your heist plan.	Uncommon	Light	\$150	\$100	Speed 10% Endurance 10%
Headband I	Equipment		Rambo.	Uncommon	Extra Light	\$100	\$50	Strength 10% Endurance 5%
Headband II	Equipment		Naruto.	Rare	Extra Light	\$200	\$100	Strength 10% Endurance 10%
Cat Action Figure	Equipment		Meow!	Rare	Light	\$300	\$200	Speed 20% Stealth 10%
Raccoon Plushie	Equipment		Trash Panda.	Rare	Light	\$350	\$200	Endurance 20% Nightvision 10%
Frog Figurine	Equipment		Ribbit!	Epic	Light	\$450	\$300	Speed 20% Salary 20%

Name	Type	Icon	Description	Rarity	Weight	Buy	Sell	Effect
Koi Ornament	Equipment		Just keep swimming, just keep swimming...	Epic	Light	\$450	\$300	Endurance 20% Luck 20%
Old Lady Figurine I	Equipment		Don't ask.	Common	Extra Light	\$75	\$50	Luck 5%
Old Lady Figurine II	Equipment		No really, don't ask.	Common	Extra Light	\$75	\$50	Salary 5%
Robot	Equipment		More than meets the eye.	Epic	Light	\$500	\$400	Strength 15% Speed 15% Endurance 15% Stealth - 5%
Surgical Mask	Equipment		Once disease protection, now fashion accessory!	Common	Extra Light	\$25	\$10	Stealth 2% Nightvision 2%
Magazine I	Equipment		Keep it, it might be worth more later.	Common	Light	\$125	\$75	Luck 10%
Magazine II	Equipment		Centerfold.	Uncommon	Light	\$200	\$125	Luck 15%

Name	Type	Icon	Description	Rarity	Weight	Buy	Sell	Effect
Cellphone I	Equipment		American made. Handle with care.	Epic	Light	\$450	\$300	All Stats 5%
Cellphone II	Equipment		Japanese made. Practically indestructible.	Legendary	Light	\$600	\$400	All Stats 10%
Microphone	Equipment		Are you ready to rock?	Epic	Medium	\$400	\$300	Luck 25% Stealth - 10%
Record I	Equipment		Like a broken record, only it works.	Uncommon	Light	\$125	\$75	Luck 5% Salary 5% Endurance 10%
Record II	Equipment		Smooth listenin'	Rare	Light	\$200	\$100	Luck 8% Salary 8% Endurance 15%
Record III	Equipment		You spin me right 'round.	Epic	Light	\$450	\$300	Luck 10% Salary 10% Endurance 20%
Record IV	Equipment		Okay, now I'm getting dizzy...	Legendary	Light	\$800	\$500	Luck 15% Salary 15% Endurance 30%
Oni Mask	Equipment		Oni you.	Legendary	Light	\$1000	\$500	Nightvision 50% Stealth 50%
Kitsune Mask	Equipment		Luck that only nine tails can bestow	Legendary	Light	\$800	\$500	Luck 35% Salary 35%

Name	Type	Icon	Description	Rarity	Weight	Buy	Sell	Effect
Legendary Helmet	Equipment		Lightning, strike the wabbit!	Legendary	Medium	\$800	\$500	Stealth 50%
Legendary Chest	Equipment		It's not gold, just gold-plated.	Legendary	Heavy	\$1000	\$600	Endurance 70%
Legendary Boots	Equipment		A journey of a thousand miles becomes easier with these.	Legendary	Medium	\$800	\$500	Speed 50%
Legendary Gloves	Equipment		You've got the Midas touch!	Legendary	Medium	\$800	\$500	Strength 50%
???	Equipment		Probably radioactive... Must be valuable!	Legendary	Extra Heavy	\$1000	\$750	All Stats 15%

Group Meeting Minutes

January 24th, 2023

- Went through the entire project plan and fixed up the feasibility document along with preliminary PowerPoint presentation.

January 26th, 2023

- Practiced PowerPoint presentation, divided the slides and discussed different talking points about the presentation.

January 31st, 2023

- Practiced PowerPoint presentation, divided the slides and discussed different talking points about the presentation.

February 1st, 2023

- Got all the Plastic SCM and Unity versions set up across the team along with some of the prototyping.

February 3rd, 2023

- Discussed Inventory mechanics & design.
- Nick pitched separate Inventory and Sell menus during end of day for selling items.
- Ivan pitched placing items in a container at the end of the day which get converted to money.
- We discussed the pros and cons of each method and decided on the container approach, as it keeps the action in-game instead of in menus, and it means 2 less menus we need to create.
- Ivan sketched out classes for Packages and Items.
- Alex pitched InventoryObject parent class for both.
- Nick resketched classes under this parent class.
- Nick split Item class into two subclasses - Equippable and Useable.
- We discussed how modifiers on items should multiply stats.
- Ivan pitched opening packages in the inventory during the night instead of at the end of the day.
- Discussed Skill Tree mechanics & design.
- Ivan sketched out the skill tree layout.
- We discussed general buffs for each point in the skill tree.
- Ivan pitched stealth immunity buff.
- Nick pitched raise bonus buff.

- Alex pitched prize item rarity buff.
- We decided against including special abilities as final skill tree buffs in favour of keeping buffs tied to player stats.
- Ivan suggested asset packs and we discussed how we would use them as a group.
- Collected assets for use in project.
- Pixel UI by PixelSoft Games - for Inventory, Skill Tree, Menus & Dialog.
- The Japan Collection: JRPG Characters Pack by Gutty Kreum - for NPCs and Player.
- The Japan Collection: Icons by Gutty Kreum - For Items.
- The Japan Collection: Interior Essentials by Gutty Kreum - For building interiors.
- Discussed Inventory mechanics & design.
Ivan suggested 4 x 2 grid.
- Nick altered to 3 x 4 so 3-cell equipment columns can fit next to the inventory.
- Discussed player collision/movement fix.
- Discussed future documentation plans.

February 9th, 2023

- Assigned tasks for the next week along with deciding on how we will implement project changes in the form of patch notes.
- Discussed potential changes to the game's UI and player experience.

February 10th, 2023

- Decided how we are implementing the delivery system along with how we wish to add player stats as a player stat manager.
- Reviewed progress on assigned tasks from the previous meeting.

February 14th, 2023

- Discussed & Fixed button color bug on the skill tree, Fixed package generation issues in the delivery system, project planning, and topics for the next meeting.

February 16th, 2023

- Created all the items, decided on the rest of the asset packages, and designed the level for the game.

February 23rd, 2023

- Practice for requirements gathering presentation.
- Proofread the document and make any final changes.
- Prepare for the alpha phase of the project.

March 2nd, 2023

- Showed each other progress on the game world and mini-map

- Discussed how to implement the Stat Manager, and refactoring previously stats into it like Endurance, Speed and Money which were implemented previously in separate scripts.

March 3rd, 2023

- Discussed how to check for items in the equipment slots to add/remove buffs to stats
- Discussed extra information that needs to be added in tooltips, such as key prompts
- Discussed balancing of player speed
- Discussed adjustments to camera zoom & clamping
- Discussed checking aspect ratio to adjust UI Canvas sizes
- Discussed how to add scriptable objects for Consumable and Equipable Goods

March 9th, 2023

- Talked about current state of stat manager
- Talked about NPC navmesh
- Talked about mini-map visibility/scaling
- Talked about persisting inventory data between scenes
- Assigned tasks for each person next week

March 13th, 2023

- Discussed problems with persisting managers while changing scenes
- Brainstormed solutions to the problem
- Discussed what each of us would do over the break

March 21st, 2023

- Discussed what each of us was currently working on
- Discussed what tasks to do for next week

March 24th, 2023

- Discussed NPC navigation for next week
- Discussed certain polishing that needs to be done such as button prompts, visual indicators for when endurance is low, waypoint arrows etc.
- Discussed bugs that need fixing
- Discussed preparing for alpha playtesting

March 28th, 2023

- Discussed NPC pathfinding. Alex was having trouble getting the wandering NPCs to avoid walls, so he pushed what he had and I'll be having a look to see if I can find the issue.
- Discussed last remaining elements needed to complete to have a playtest version ready

- Discussed creation of playtesting feedback form

March 31st, 2023

- Discussed NPC detection radius, making it a light source instead of a plain circle.
- Discussed moving detection bar to the top of the screen.
- Discussed completion of NPC animations
- Discussed more about playtesting preparations
- Discussed future tasks such as keybinds, button prompts, save system

April 4th, 2023

- Discussed preparations for alpha playtesting. We had wanted to get everything done that day, but things didn't work out, as we encountered major merge problems and build crashes before getting everything working

April 11th, 2023

- Discussed finally launching alpha tests as everything was ready and merged
- Discussed what tasks each of us would have for the rest of the week, including keybinds, music and sound, and save systems

April 12th, 2023

- Chose the music and sound effects we wanted to use in the game, and where they would be used
- Discussed

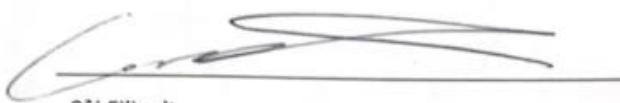
April 14th, 2023

- Discussed changing rent increase rate for balancing
- Discussed balancing prices and durations of items to make them more useful
- Discussed altering package opening to give the player the item inside immediately rather than opening it in the inventory

Feasibility Proposal

Project Proposal Sign-off

We grant approval to pursue the project as outlined in this document, including any additional requirements listed below*. Any changes made to the project that deviate from the presented information renders this approval void and the approval process must begin again.



Câle Filiault

* With the following additional requirements: