**Game Design Document for:**

# Avarice

**Become a real-life adventurer!**

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Version # 1.00

Saturday, January 20, 2024

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## 2.0. Game Overview

2.1. Game concept

Embark on a medieval 2D adventure called Avarice, starting as a wandering adventurer drawn to a town besieged by monsters. After safeguarding some merchant caravans selling monster pelt, you make the town your home, exploring dungeons to collect loot and clearing out nearby monsters to defend your town and supporting the local economy, which many of the townspeople appreciate. Upgrade gear using a unique leveling system, balancing combat skills and barter expertise.

As you continue to defend the town, you hear of rumors of a cavern with untold riches and harder monsters, propelling you deeper into danger. Confront a deceptive final boss resembling gold, which was the source of the town's original plight. Defeating it seals the town's fate, leading to abandonment due to the monsters being cleared out. Navigate a crafted map from the town to the ominous forest and treacherous cavern. This game challenges players to balance ambition with consequences, turning the pursuit of wealth into a bittersweet adventure with unforeseen repercussions.

2.2. Philosophy

This game harkens back to the American 1800s during the gold rush where many prospective families and people rushed to California in hopes of gold and being rich, but as times went on and the famed gold source went away, many of these mining towns became abandoned and many families and peoples dreams are shattered due to lack of luck or capability. While there were many winners of the gold rush, a majority of people lost and sacrificed their lives and lost that bet.

Here in this game, the adventurer does end up as the winner as he has the capability to rise up and defeat the monsters that are plaguing, but also helping the town’s economy letting it be a booming town.

2.3. Target Audience

The target audience for this game is anyone 13 and older since there will be combat and potentially blood that the user will see, which is not suitable for younger audiences.

2.4. Genre(s)

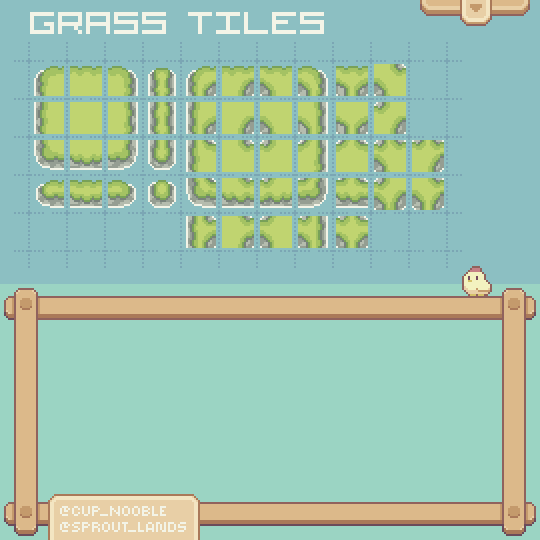
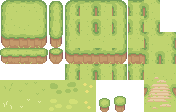
The Genre of this game is adventure survival.

2.5. Game Flow Summary – How does the player move through the game? Include both the interface and the game itself.

* The player will move through the game using the WASD keys, which correspond to the cardinal directions based on the view of the game. The game itself is broken up into different levels that once the player crosses a boundary or end point of a level, they will be teleported to the next level.

2.6. Look and Feel – What is the basic look and feel of the game? What is the visual style?

* The main visual style is medieval high fantasy. The art style is similar to Stardew Valley as it will be 16 bit graphics and art style with a medieval spin/look.



## 3.0. Gameplay

3.1. Objectives – What are the objectives of the game?

* The primary objective in "Avarice" is to explore, survive, and thrive in a dynamically evolving world. Players must navigate through a series of environments, defeating monsters, gathering resources, and uncovering the mysteries of the cavern said to hold untold riches. The ultimate goal is to face and defeat the deceptive final boss, influencing the fate of the town based on player actions and decisions.

3.2. Game Progression

* Game progression in "Avarice" is nonlinear, offering players the freedom to explore the world at their own pace. Progression is marked by key milestones such as:
  + Enhancing character abilities and equipment through a comprehensive leveling system.
  + Unlocking new areas of the map, each with unique challenges and rewards.
  + Achieving story milestones that advance the narrative and impact the game world.

As players progress, they will encounter increasingly difficult monsters and complex scenarios that require strategic thinking and resource management.

3.3. Play Flow – How does the game flow for the game player

* "Avarice" is designed to immerse players in its world, with gameplay flowing seamlessly between exploration, combat, and story-driven events. The play flow is structured as follows:
  + Exploration: Players can freely navigate the game world, discovering hidden locations, and solving environmental puzzles.
  + Combat: Engagements with monsters are tactical but still straight forward, requiring players to use a mix of weapons and movement
  + Story Events: Key narrative moments are woven into the gameplay, offering choices that impact the story and world.
  + Town Management: Players will interact with the town and its inhabitants, learning more about the town and each persons struggles

3.4. Mission/challenge Structure

* The main mission/challenge structure is to defeat monsters who drop materials/loot based on the monster they are (i.e. a wolf drops pelt) and selling it back to the town to get better items to protect yourself and slay more monsters.
* Missions in "Avarice" vary from combat-focused quests to exploration and discovery challenges. Each mission is designed to reveal more about the world and its history, contributing to the overarching narrative. Challenges are tiered, with higher difficulty levels offering greater rewards but also greater risks.

3.5. Puzzle Structure

* There are no puzzles in the game, it will just mainly be an adventure game with combat and story.

## 4.0. Mechanics

4.1. Rules – What are the rules to the game, both implicit and explicit.

* The core rules governing "Avarice" establish the framework within which players operate, including:

* + Character Death: Players respawn at the last visited town with a penalty to resources or experience.
  + Combat System: Basic attacking and blocking, no stamina system.
  + Economy: Players must balance resources obtained from exploration and combat with expenditures on equipment, town upgrades, and information.
  + Progression: Experience points are gained through combat, exploration, and completing objectives, contributing to leveling up and skill advancement.

4.2. Model of the game universe. Think of it as a simulation of a world, how do all the pieces interact?

* "Avarice" is set in a high-fantasy world that adheres to an internal logic:
  + Seasonal Changes: The game world experiences seasons that affect resource availability, monster behavior, and quest accessibility.
  + Day-Night Cycle: Certain monsters and events are only available at specific times, encouraging strategic planning of exploration.
  + Dynamic NPC Interactions: NPCs have schedules and react to player actions, contributing to a living, evolving world.

4.3. Physics – How does the physical universe work?

* Since the game is in 2d, there will not be any newtonian physics needed for the game. Most attacks will either travel in a straight line if they are a projectile or horizontal sweeps with a sword that hit within one box from the player model.

4.4. Economy – What is the economy of the game? How does it work?

* Killing monsters and they drop loot based on the type of monster they are (i.e. a bat will drop bat wings)
* Selling monster parts for gold from merchants and using the gold to buy more and more expensive armor.

4.5. Character movement in the game

* Using the WASD keys to attack, E for interact, left mouse button for attacking, and right mouse button to block attacks.

4.6. Objects – how to pick them up and move them

* In this game, there will not be any items that drop onto the ground for the player to interact with, but there will be objects that you can interact with that will trigger specific different actions, but there will not be a pick up feature.

4.7. Actions, including whatever switches and buttons are used, interacting with objects, and what means of communication are used

* The main action key will be “e” which will be used to interact with NPCs, set objects, and

4.8. Combat – If there is combat or even conflict, how is this specifically modeled?

* Combat is broken up into 2 parts, melee and ranged. Starting off, the user will only be able to use melee attacks and weapons which cause a wide 120 degree cone of attack in front of the direction they are facing.
* Melee: 2 actions – Attack & Parry
  + Attack – 120 degree cone of n damage (according to weapon stats)
  + Parry – If hit by melee attack, negate damage. If hit by ranged, 90% chance of blocking damage
* Ranged: 1 action – Shoot
  + Shoot – Shoots projectile in straight line for n damage (according to weapon stats), charge up required for how far you want to shoot.

4.9. Screen Flow -- How each screen is related to every other and a description of the purpose of each screen

* The screen flow design ensures a seamless experience:
  + Main Menu: Access to game modes, options, and game information.
  + In-Game UI: Displays health, stamina, equipment, and inventory in a non-intrusive manner.
  + Pause Menu: Allows players to access settings, save the game, or return to the main menu.

4.10. Game Options - What are the options and how do they affect game play?

* "Avarice" provides players with customizable options to enhance their experience:
  + Difficulty Settings: Adjustable to cater to different skill levels and playstyles.
  + Graphics and Audio: Options to adjust visual and audio settings for optimal performance and user preference.
  + Keybindings: Fully customizable keybindings to accommodate player preferences.

4.11. Replaying and saving

* The will be basic auto saving feature as well as a manual save feature for the player.

4.12. Cheats and Easter Eggs

* There will be no easter eggs or cheats.

## 5.0. Story & Narrative

5.1. Back story

* You are a wandering adventurer who has just left the academy to help and save people from danger. Driven by a sense of justice and curiosity, your journey leads you to a small town on the edge of collapse, plagued by monsters and on the brink of abandonment. Seeing an opportunity to make a difference, you decide to make this town your new home base, vowing to protect it and its inhabitants from the looming threats.

5.2. Plot elements

* Exposition: Helping defend a merchant caravan from monsters and learning about the dangers the merchants and the town they are from face
* Rising action: Helping defend the town by clearing out dangerous parts of the forest and letting the town expand
* Rising action 2: Learning about a mysterious cavern that has riches and harder and harder monsters.
* Climax: Exploring the cave and defeating the boss monster which you thought was originally a pile of gold
* Falling action: Coming out to see no more monsters and feeling you helped save the town from monsters forever
* Resolution: Town is slowly abandoned because there are no monsters that can give you parts to sell to others for gold, so no income.

5.3. Game story progression

* The story of "Avarice" progresses through the player's interactions with the game world and NPCs. As players explore deeper into the forest and the caverns, they uncover the true source of the town's troubles and must decide how to deal with the knowledge they gain. The player's choices will directly impact the town's fate, with 2 potential endings based on the paths chosen. The narrative is designed to make players question the true cost of their quest for wealth and the impact of their actions on the world around them.

5.4. Cut scenes -- descriptions include the actors, the setting, and the storyboard or script.

* Introduction: A cutscene shows the adventurer's arrival at the town, highlighting the immediate threat posed by the monsters and the town's desperate situation.
* Mid-Game: After discovering the entrance to the cavern, a cutscene plays, showing the adventurer's resolve to face the dangers ahead for the sake of the town.
* Climactic Battle: A dramatic cutscene precedes the final boss fight, revealing the true nature of the monster and the adventurer's realization of what must be done.
* Ending: Depending on the player's choices, different cutscenes will play out, showing the aftermath of the adventurer's decisions and the ultimate fate of the town.

## 6.0. Game World

6.1. General look and feel of world

* The general look and feel of the world are more akin to a fantasy game that is 16-bit with stardew valley attacking mechanics and movement. The artstyle is a bit cartoony, but it has a lot of elements of high fantasy such as taverns and lot of brick and stone and thatched houses.

6.2. Areas

* Tutorial – Path leading to the main town, surrounded by forest with a straight path in the middle. There is a broken caravan cart in the middle that the adventurer will have to protect.
* 3 main areas – Main town, Forest surrounding town with path for caravans, and hidden cavern. Forest has sublevels for different levels of monsters
* Town area – Has NPCs that you can interact with to learn more about the town’s backstory and hear rumors about the monsters nearby. It also has NPCs and market areas to sell and buy valuable items that will be useful for questing.
* Forest – There are multiple sublevels within the forest area with increasing more difficult monsters but with better loot
* Cavern – Final boss level where there are a lot of cave mobs before you get to the boss monster

6.2.1. General description and physical characteristics

* Each area in "Avarice" is distinct, designed to challenge the player in unique ways and gradually unveil the lore of the world.
* The Town: The heart of the game's economy and narrative. Cobblestone paths wind through a lively market, artisan shops, and cozy taverns. The architecture is a blend of wood and stone, reflecting the town's resilience and history. It serves as the player's home base, where they can interact with NPCs, upgrade gear, and receive quests.
* The Surrounding Forest: A dense, mysterious forest that encircles the town. It's a place of beauty and danger, inhabited by various creatures. The forest is divided into zones, each progressively more challenging and home to different monsters and resources.
* The Cavern: The ultimate destination for adventurers, rumored to hold untold riches and the source of the town's troubles. Its dark, winding passages are filled with deadly traps, fierce monsters, and puzzles that test the player's wit and resolve.)

6.2.2. How relate to the rest of the world

* Each area is interconnected, allowing for a seamless transition from one adventure to the next. The events and decisions in one area can influence the state of others, creating a dynamic and responsive world. For example, clearing out monsters in the forest may lead to the discovery of new paths or influence the prosperity of the town.

6.2.2.1. What levels use it

* Tutorial and early game missions focus on the town and its immediate surroundings.
* Mid-game levels explore deeper into the forest, introducing more challenging combat and quests.
* Late-game levels are set in the cavern, culminating in the battle against the final boss and revealing the game's climax.

6.2.2.2. Connections to other areas

* Paths from the town lead into the forest, with hidden trails and caves linking back to other parts of the forest or emerging near the cavern's entrance. The design encourages exploration and revisiting areas to discover new secrets as the player's abilities and the game's story progress.
* Expansion and World Dynamics
  + To ensure "Avarice" remains engaging, the game world will feature dynamic elements such as:

* + - Seasonal Changes: The game world will cycle through seasons, affecting available quests, monsters, and resources.
    - Evolving Town: The town will grow or decline based on the player's actions, influencing available items, quests, and NPC interactions.
    - Hidden Areas: Secret locations that can be unlocked by solving puzzles or progressing in the storyline, offering unique rewards and lore insights.
* This approach to the game world not only enriches the player's experience but also enhances the replay value of "Avarice," encouraging players to explore every corner of the world and uncover all its secrets.

## 7.0. Characters

7.1. For each character (Only MC)

7.1.1. Back story

* The main character is a seasoned adventurer who has traveled across various lands seeking to aid those in peril. After leaving an academy where they honed their skills, they are drawn to a troubled town on the frontier, beset by monsters. Motivated by a blend of curiosity and a desire to protect, the character sees this town as a new home where they can make a significant difference.

7.1.2. Personality

* The protagonist is characterized by bravery and a strong sense of justice with a mix of infinite curiosity about the world around them. They are also thoughtful and compassionate, often weighing the long-term consequences of their actions on the town and its inhabitants. Despite their combat prowess, they prefer peaceful resolutions when possible but are ready to fight when necessary.

7.1.3. Appearance

* The adventurer has a clean-ish appearance, with weather-worn clothing suitable for travel and battle. They typically wear a cloak and sturdy boots, with a belt equipped with various tools and weapons. Their gear is functional but bears marks and patches from past adventures, reflecting a history of braving dangerous encounters.

7.1.4. Abilities

* Initially skilled in basic combat, the character's abilities evolve through interactions with the game world. They gain access to unique skills like advanced swordplay, archery, and mystical arts discovered in ancient texts within the cavern. The character also develops non-combat abilities, such as diplomacy and bartering, which help in dealing with town folks and merchants.

7.1.5. Relevance to the story

* As the central figure of the narrative, the protagonist's actions directly influence the fate of the town. Their decisions determine whether the town thrives or declines, impacting the game's ending. Their journey from a lone wanderer to a key figure in the town embodies the game's themes of ambition and consequence.

7.1.6. Relationship to other characters

* The main character's relationships with other characters are pivotal. After a while, they are a leader and protector to the townspeople, a customer and partner to the merchants, and a feared adversary to the monsters. Their interactions with NPCs like the town elder or the mysterious hermit can unlock new quests, provide insights into the lore, and open up additional gameplay options.

7.2. Artificial Intelligence Use in Opponent and Enemy

* Tactical AI: AI opponents have distinct personalities and tactical approaches. For example, some might be braver and aggressively charge at the player, while others could be cautious, setting traps or ambushing the player. Leaders among enemy ranks could coordinate attacks, making encounters more challenging.

7.3. Non-combat and Friendly Characters

* Non-combat and friendly characters in "Avarice" enhance the depth and immersion of the game world through various interactions and support roles. Here are some specific roles and interactions these characters may have:
  + **Quest Givers:** Many friendly NPCs provide quests, offering the player opportunities to explore unknown areas, gather rare materials, or delve into the backstory of the town and its inhabitants. These quests often involve puzzles or exploration rather than combat.
  + **Traders and Craftsmen:** Characters such as blacksmiths, alchemists, and merchants offer essential services. Players can buy equipment, sell loot, or commission items that are crucial for later challenges. Some may offer unique items that require specific materials found in hidden game areas.
  + **Mentors and Trainers:** Certain NPCs serve as mentors, offering training that can unlock new abilities or enhance existing ones. These characters can also provide insights into the game’s lore and tips for tackling difficult areas.
  + **Storytellers and Lore Keepers:** Some characters exist to enrich the game's story. They share tales of the town’s history, folklore, or details about the mysterious cavern. These stories can provide clues about solving game puzzles or hints about hidden treasures.
  + **Dynamic Relationships**: Relationships with these characters can change based on the player's actions. Helping a merchant fend off thieves might result in discounted prices at their shop, or failing to save a character's friend from danger could alter their demeanor towards the player, closing off certain quests or assistance.
  + **Emotional Support:** Some characters might share personal stories, offering players a deeper emotional connection to the game world. These interactions can add layers to the narrative, making the player’s role feel more significant and impactful.

These AI and non-combat character elements are designed to create a rich, responsive game world that reacts meaningfully to the player's decisions and actions, enhancing the overall immersion and complexity of "Avarice."

## 8.0. Levels

8.1. Training Level

* The training level serves as the player's introduction to the mechanics, controls, and narrative foundation of "Avarice." Set on the outskirts of the main town, the player is tasked with escorting a merchant caravan through a forest path ambushed by monsters. This level teaches basic movement (WASD keys), combat mechanics (left mouse button to attack, right mouse button to block), and interaction with NPCs and objects (E to interact). Players learn the importance of strategy in combat and resource management (through learning how to use the inventory, I for inv), setting the stage for the challenges ahead.

8.2. For each level

* Each level in "Avarice" is designed to expand upon the story, challenge the player with new environments and enemies, and introduce complex mechanics that build on previously learned skills.

8.2.1. Synopsis

* Levels are structured around the player's quest to uncover the secrets of the cavern and the source of the town's plight. As players venture from the town into the surrounding forest and finally into the depths of the cavern, they encounter a variety of challenges, from puzzles and traps to formidable foes.

8.2.2. Required introductory material and how it is provided

* The main introductory material will all be taught at the training level where most basic controls will be taught. For text instructions, there will be an instruction/controls sheet at the beginning when starting the game.

8.2.3. Objectives

* Objectives in each level vary, including defeating certain monsters, retrieving specific items, or uncovering hidden areas. Primary objectives advance the story, while secondary objectives offer additional challenges and rewards.

8.2.4. Details of what happens in the level

8.2.4.1. Map

* Each level features a unique map, designed to encourage exploration and strategic navigation. Hidden paths and secret rooms reward players for thorough investigation.

8.2.4.2. Critical path that the player needs to take

* A clearly defined main path guides players through the level's primary objectives, ensuring that the narrative progresses smoothly while still allowing for exploration.

8.2.4.3. Important and incidental encounters

* Levels are populated with a variety of encounters. Important encounters, such as boss fights, are pivotal to the story and often involve unique combat or puzzle-solving challenges. Incidental encounters, including skirmishes with minor monsters or interactions with NPCs, enrich the game world and offer opportunities for resource gathering and leveling up.

## 9.0. Interface

9.1. Visual System

9.1.1. HUD

* The HUD in "Avarice" is designed to be minimalist and non-intrusive, providing players with essential information at a glance. Key elements include:
  + Health located at the top left corner of the screen.
  + An inventory shortcut and active item slots at the bottom center, allowing for quick selection and use of items and equipment.
  + A mini-map in the top right corner, displaying the player's immediate surroundings and points of interest.
  + Contextual prompts and action indicators that appear when the player can interact with objects or NPCs.

9.1.2. Menus

* Menus in "Avarice" are accessible and straightforward, facilitating smooth navigation through game options, inventory management, and character progression. The main menu includes options for starting a new game, continuing a saved game, adjusting settings, and accessing help resources. In-game menus provide access to the player's inventory, map, and quest log, all organized intuitively to minimize time spent away from the core gameplay.

9.1.3. Camera model

* "Avarice" employs a fixed isometric camera angle, offering a clear view of the environment and action while enhancing the game's medieval fantasy aesthetic. The camera is designed to dynamically adjust in certain situations, such as zooming in during critical story moments to emphasize intensity and detail.

9.2. Control System – How does the game player control the game? What are the specific commands?

* The control system in "Avarice" is optimized for both accessibility and depth, ensuring players can easily master basic actions while allowing for complex maneuvers in advanced gameplay. Key controls include:
  + Movement via WASD keys.
  + Mouse-controlled aiming for ranged attacks and interaction with the environment.
  + Left mouse button for primary attacks; right mouse button for blocking or special abilities.
  + E key for interactions, such as talking to NPCs, opening chests, or activating mechanisms.

9.3. Audio, music, sound effects

* Music
  + The musical score of "Avarice" is designed to immerse players in its rich, fantasy world, with themes varying from tranquil melodies in the town to tense, dramatic compositions in dungeons and during boss encounters.
* Sound Effects
  + Sound effects in "Avarice" are carefully crafted to enhance gameplay feedback and immersion. From the clash of swords to the ambient sounds of the forest, audio cues provide important feedback and enrich the game's atmosphere.

9.4. Game Art – intended style

* "Avarice" adopts a 16-bit art style reminiscent of classic adventure games but updated with modern techniques for animation and effects, achieving a look that feels both nostalgic and fresh. The game's art direction emphasizes vibrant colors, detailed character designs, and expressive animations, bringing the world and its inhabitants to life

9.5. Help System

* To assist players, "Avarice" features an integrated help system accessible through the main menu and via a dedicated key during gameplay. This system includes:
  + A tutorial section covering basic controls and gameplay mechanics.
  + A FAQ section addressing common questions about game progression, troubleshooting, and tips.
  + Dynamic help that offers context-sensitive advice based on the player's current situation or challenges they are facing.

By prioritizing clarity, immersion, and player support, the interface design for "Avarice" aims to enhance the overall gaming experience, making the world of "Avarice" accessible and engaging for players of all skill levels.