LOOP DECK GAME DESIGN DOCUMENT

WILL BENNETT

Contents

Game Description

The main character of the game is an underling of an evil being, they have been tasked to expand their master's domain through managing dungeons throughout the kingdom. This will not be easy as the player will be opposed by region guilds. These guilds will be attracted by the prospect of taking down the dungeon and claiming the reward for annihilate the evil presence in the kingdom.

The player has to defend the dungeon from the guild's adventurers, these adventurers will fight the contents of the dungeon in an auto battler fashion, with the player being able to customise the dungeon through the use of a deck of cards. This deck can be created before the players sets off to defend the dungeon. This allows the player to create a set design for the defence they want to create. The dungeon bestowed to the player, is made from a tilemap, with the dungeon itself being a circuit in the middle. This tilemap is adapted via the cards the player plays, which applies effects depending on the card that was played. these cards come in three forms: pathway, path side, and terrain. Each of these dictates where the card can be placed, with path related cards effecting combat directly via spawning minions or placing fight effects.

When building up their dungeon the player has to be careful of attracting too much attention, as when the dungeon gains too much attention the local guild will send a party of heroes to finally take down the dungeon once and for all. The player can gear up for this fight by defeating guild members and equipping their dropped loot. These adventurers sent by the guild will get increasingly harder as the dungeon rating increases. This causes the player to weight gaining more powerful gear and waiting too long and the hero party being over levelled.

The player is able to abandon the dungeon, as long as there is no adventurer within it. This will allow the player to return to the overworld and donate their materials to their master. The master will then reward the player with new cards and power ups. The player will gain these materials from defeating the adventurers, with different adventurers dropping certain materials. When the player abandons the dungeon, they will bring all of their materials with them, but once the attention level reaches a set amount, they will no longer be able to abandon the dungeon as it has attracted too much attention. If the player fails to conquer the region and falls to the hero party, then the player will only be able to scavenge a small number of materials from the dungeon.

Genre

Roguelite

This game will feature within the roguelike genre, it will have the player taking control of a dungeon for each run. While the game will have permanent upgrades, these upgrades will only provide more content to play with. This is roughly described within the description of the game, but these upgrades will be done in the overworld. The materials for these upgrades will be harvested from the dungeon and the adventurers/minions killed within it. While this game does not feature the typical dungeon crawling aspect since the player will have full view of the dungeon. There will be exploration of the card combinations and equipment builds dropped from the adventurers.

To amend to player types there will be:
Bestiary –

This will focus on achievers and explorers, as each adventurer will feature within the bestiary, they will be able to track their progress. In doing so some rewards could be given to the player. Additionally, any minions the player spawns will feature within the bestiary.

Hard bosses –

While there is no PVP in this game, the killers should be able to get some thrill from killing bosses. These bosses will be a challenge and will require some build management to prepare the character to be able to fight them.

Wide set of environment cards -

This goes hand in hand with the bestiary, as it is where the enemies will spawn. This will appease explorers, achievers, and potentially killers. This is due to gaining all environments will allow the players to complete the bestiary, additionally it will hide some harder enemies behind unlocks causing killers to seek out and expand their collection.

Deck builder

This will be a sub-genre of the game, with this genre being featured more often in the roguelike genre. Implementing this genre will be done in two ways. One way is through the player directly using their deck to influence the terrain and minions while they are in an expedition. Another is when they donate their materials to the master, this is the main way to unlock new card types.

Auto battler

The auto battler genre is also a sub-genre of this game, with the combat side of this gameplay featuring this. The player will be able to influence this through the equipment they find throughout the expedition.

Gameplay Description

Core gameplay loop

The core gameplay loop is split into two stages, one is where the player can view an overview of the domain the master wants to conquer. This is where the player can donate materials gained in the dungeon, in doing so the player will unlock new tiles and upgrade equipment. This will act as a way to break up the core gameplay action. The other section is in the dungeon, where the player will spend most of their time. The dungeon will offer a way for the player to gain materials to expand their arsenal. The gameplay loop on the dungeon is an auto battler, in which the adventurers/enemy will run into the dungeon and fight the defence of minions to try kill the dungeon master (the player) at the end of the circuit.

The player will have to set up the dungeon to be able to defend from incoming adventurers, this is done by placing cards from their deck. These cards allow the player to change the dungeon. In doing so it can offer ways to spawn new types of enemies and provide effects for in combat. These cards are split into three types, pathway, path side, and terrain. Pathway cards cause new minions to fight for you, these will drop new terrain cards when defeated. Path side effects combat directly by either spawning minions or causing combat effects. Terrain cards act as buffs for the players and minions, this allows the player to challenge themselves and to strategically gain resources.

To delve into the combat a bit deeper, the circuit is made up of tiles which minions will spawn on. Each tile can be replaced by the player but only once so placing a circuit card poorly can have bad ramifications later in the run. When the player defeats the active hero, they can abandon the dungeon. This will allow them to bring all their resources back to spend. If the player wants to challenge themselves and progress, they can gain enough attention to bring in a party of heroes.

When an adventurer dies the player can equip the loot that they drop. The loot they drop varies depending on which adventurer dies. This gear will level up the players base stats to prepare them for the adjusting difficulty. This difficulty increases with how many adventurers get killed by the dungeon. This will constantly keep the player on their toes.

Goals

The overall goal for the player is to defeat enough guilds to conquer the kingdom. As stated, these resources are found by minions and adventurers dying in the dungeon. The diversity of minions and adventures attracted will be affected by the deck the player brings. This will add some variety in the cards the player will bring as these materials will allow them to unlock more content. By linking the materials to the adventures and minions the player will have to be versatile to adapt to all types of minions/adventurers, but they can invite this challenge at their own pace.

Within the runs, the player's goal is the defeat the party of heroes. As the only way to gain better gear is through combat, the player will have to manage their equipment/defences to survive the ever-increasing dangers. With that being said, as the player builds their defences the dungeons attention will increase. Once this attention score reaches a set amount the player will no longer be able to abandon the dungeon. They will only be able to leave once they defeat the party of heroes (boss of the run). Defeating the heroes will reward the player with a large sum of materials, making it a high risk to challenge them, but if defeated the player will gain a high reward. If the player fails to defeat the heroes or dies before they appear they lose the majority of their materials and only take back a percentage.

Game mechanics

This section is influenced by the primary data collected in the paper this document supports.

The core gameplay can be split into two sections, item management and combat. As mentioned in the core gameplay loop, the player's goal is the defend the dungeon from attacking adventurers. These adventurers will drop equipment and cards for the player to manage, this will be used to defend the dungeon further.

Item management

Items in this game are the equipment and cards the player can interact with. This the only way the player can influence the game. Cards and tiles are a bit more complex and will be covered separately, but equipment is a bit simpler. Equipment focuses on giving the player extra stats to help defend against the oncoming adventures. These stats are discussed more in the Items section below. From the questionnaire, participants are split on the idea of roguelikes feeling unbeatable, through the use of giving the player a wide range of builds to try out, they will be able to explore the vast amount of content while trying to one that benefits the adventurers they are fighting. This gives the player a large quantity of content to explore.

Cards and tiles

The idea behind having a large amount of content follows into cards and the tiles they represent. Allowing the player to explore deck combinations will limit the amount of content they get exposed to which will stop the player from being overwhelmed by choice.

The key mechanic behind tiles are their effects, with each tile having a unique effect on the dungeon and the minions. To reduce the steep learning curve of what each card, the cards have been split into three different types, with each type having similar effects. Terrain cards are buffs for the player character and the minions, path side cards effect combat directly or spawn minions, and pathway cards spawning minions. This sectioning will allow beginner players to pick up the logic behind this mechanic quickly and begin to explore the deeper mechanics of the game. This will reduce the overwhelming aspect many deck building games have.

As the player builds up knowledge of their deck and some combinations between the cards, the hidden information shrinks, and they player will only have to worry about long term plans such as which equipment builds or the layout of the dungeon. This will keep the player engaged while rewarding them from planning. To further the idea of rewarding planning, the player will have a large amount of control over the game, with gaining items being the main form of randomness in the game. This will come in the form of input randomness and will enhance the plans player's make.

Combat

Combat is a core part of the game, with the player gaining loot from it and winning the game by defeating the party of heroes in combat. This is why the player understanding how the combat works is important. One main aspect of this is how stats play a part in it. As mentioned, the player has two ways to upgrade their stats, armour and landscape tiles. Both of these will increase the players stats, while landscape tiles are the only way the player can increase the minions' stats. This can bolster the players defences since the adventurers will keep getting stronger. This means it is important for the player to balance upgrading their stats and maintaining their minions. While stats are not the only advantage the minions can gain, as the player can place tiles to implement combat effects such as entities dying when they reach 20% health. When combined with high defence minions, the adventures will be put at a disadvantage.

The core gameplay of the combat is an auto battler, which is why stats play a major part of the system. This takes the pressure off the player learning mechanical skills but instead puts it onto their knowledge of the combat system and how they can plan their defences to give their minions an edge.

Items

Items consist of two types: cards and equipment. Both of these are dropped by adventurers, while minions will consistently drop cards while rarely dropping equipment. These will be linked to each entity through the use of a loot table.

As discussed in game mechanics, cards play a central part of the game as they allow the player to customise the dungeon and defend themselves. These cards will be drawn from a deck when earned, giving the player a limited pool of cards that they can use. Each card is single use and will permanently change the dungeon.

Meanwhile equipment acts as a way for the player to improve their stats in a major way. Each equipment has a guaranteed stat assigned to them which can be seen below. Depending on the tier of loot the adventurer is able to drop, this equipment will have extra stats. This will reduce the amount of benefit the main stat gives, as the amount is spread between the additional stats. These extra stats can be seen below. Similar to cards, once an amour is equipped, the player cannot unequip it. This means they will have to equip a different armour to change the stat.

Equipment comes in main types, with a main stat related to them:

- Weapon
    - Damage
- Helmet
    - Armour
- Chest plate
    - Extra Health
- Gauntlets
    - Attack speed
- Boots
    - Evasion
- Additional stats
    - Vampirism

Progression and challenge

Overarching Progression

As mentioned in the game description, the player will have two ways of progressing, this section will focus on the break from the gameplay. To allow the player to unlock more cards and equipment, the player can spend their materials they have gained. This progressing will be persistent, which will be remind the player of the progress they have made so far. Allowing the unlocks to persist allows for players to gain more content the more they play, with players who play more efficiently being rewarded with the unlocked sooner.

As mentioned, this acts as a break from the constant combat the main game loop provides, this makes the runs stand out more since the player isn't forced to play runs back-to-back. In refence to player engagement, this will allow for the gameplay to stick out and stay intense since the player is not being over exposed to it.

Progression through expeditions

With that being said, the player will have a sense of progressions while in defending the dungeon. This can be split into two aspects. One is the player slowly filling the map up with the deck they used, this progression is capped by the player having to fight a boss once a set number of cards are placed. The other factor influencing the sense of progression is the equipment the player has. As mentioned earlier the player is able to gain gear and equip it after defeating adventurers. The further the player progresses in defending the dungeon, the better gear they will gain.

While the player can influence the sense of progression via the methods discussed, there will be passive systems that will cause the sense of progression for the player. An example of this is through challenging the player. An overarching example of this is difficulty curves. Each expedition will have the player fight a varied number of enemies, but since the player will be fighting the same enemy pool over and over, it is important that the player does not get bored. Increasing the difficulty to challenge the player is one way to keep the player engaged and feel rewarded for being able to clear hard fights. For this scenario boss fights can be used, this is because it will be a long-term challenge for the player to overcome. Once this boss is defeated the player is joyed as they have beat a hard boss.

Losing

As mentioned throughout the document, the player can only lose during expeditions. The downside of which causes a reduction of resources being gained from the expedition. To reduce the feeling of lost time, the player will still gain resources. This gain will roughly be 20% of the total gain. This loss is only triggered by the player dying trying to defeat the adventurers/heroes, so if the player abandoned early, they would not lose any resources. That being said, they will lose out on gaining the bonus for defeating the boss.

Art Style and Themes

The game is strongly linked to a tilemap system, this reduces the number of options possible, that being said a pixel art influenced art style benefits this limitation.

The player is partnered up with an evil overlord, this allows for some theming to showcase this. Often evil in games is portrayed through the use of darker tones and reds. A game that is a good example of this is "Cult of the Lamb" by Massive Monster (2022) as seen in Figure 1. This cultlike theme encapsulates that the player is not on the morally good side. This is showcased by the dark shadowing behind the main character who is drowned in a blood-like red. This directly opposes the aesthetic that "Loop Hero" by Four Quarters (2021) creates. With the hero in the foreground, they seem to be opposing a larger target which is one of the bosses in the game as seen in Figure 2. This uses cooler colours, with blue being the highlighting factor, this could be showcasing the hope the hero provides.

Figure 1: Cult of the Lamb splash art (Massive Monster, 2024)

Figure 2: Loop Hero splash art (Four Quaters, 2021)

One game that utilizes pixel art well with a tilemap is "Stardew Valley" by ConcernedApe (2016). This game features the player constantly editing the ground to create a farm, this means the tilemap has to be interactive to the player's actions while being able to adapt and correctly display their actions which can be seen in Figure 3. "Loop Hero" is another example of this with the game giving a simplified pixel effect to the UI. The effect this gives is different to "Stardew Valleys" with the theme being more fitting in an arcade game this can be seen in Figure 4. "Boss Monster" by Brotherwise Games (2024), is a card game which later got adapted into a virtual game by Plain Concepts Corp. Both games feature an art style heavily inspired by retro arcade games which can be seen in Figure 5, similar to "Loop Hero". With "Boss Monster" sharing a similar concept of an evil entity aka a boss monster, defending their dungeon from heroes, the aesthetic does inspire direction this game will go in.

Figure 3: Stardew valley promotional screenshot (ConcernedApe, 2016)

Figure 4: Loop Hero promotional screenshot (Four Quaters, 2021)

Figure 5: Boss Monster screenshot (Smith, 2015)

Overall, the themes and art style will take inspiration from the games mentioned with "Boss Monster" and "Loop Hero" providing good example of how to create an arcade inspired game. This

mixed with the theming of "Cult of the Lamb" to create the feeling that the player is evil, will correctly encompass the motives of the game.

Music and Sounds

To allow the game to be flexible, this section will stay at a high-level concept. This will allow the design of the game to be consistent but not being nailed down too early. Music and sound are often linked to the theming and art style of the game. If this is not done, then player immersion can be broken due to the incorrect feeling of the gameplay's art style not matching what the player is hearing. This means the music and sound will match the previously discussed decision of arcade inspired pixel art. This retro feeling should have a 16-bit crunchy sound to it. Additionally, the music will need to match the motive of the game, this will make it lean towards more evil sounding instead of the typical music found in games which supports the heroes.