



DESIGN DOCUMENT

By Scribhneoir
for the [2024 Pirate Software Game Jam](#)

Introduction

Game Summary Pitch

CryptDeck is an asynchronous, multiplayer, deck-building dungeon crawler, where players build decks that simultaneously serve as their own dungeon-crawling tools while also functioning as the very obstacles that other players must overcome.

Inspiration

King of Thieves

King of Thieves is a mobile app where players design a platformer dungeon to protect their hoard of treasure. The player will then platform through other player's dungeons while other players try to reach the player's hoard. This is all done asynchronously; the dungeons are stored in a database, and all runs against the dungeon are logged.

The runs' effects will be applied on the next login if the player is offline. This asynchronous play system will more or less be adopted directly by CryptDeck.

Solitaire

CryptDeck's dungeon navigation was inspired by solitaire. Each pile and action is reminiscent of choosing a path in a giant labyrinth. The stacking of cards into piles from a central deck has a peaceful and thoughtful rhythm that CryptDeck hopes to emulate.

Inscription

Inscription, among other general inspirations, was the inception of the card merging mechanic. Paring down a deck by combining two weaker cards into a more powerful one makes for a constant cost / benefit analysis from the player.

Player Experience

A new player will first encounter a tutorial crypt. Through playing the tutorial they will learn the basic mechanics (navigation, combat and brewing), while simultaneously collecting cards to form their basic deck. At the end of the tutorial, they will learn that their battle deck has a shadow side that acts as a crypt for other players to battle through. They will then be matched with other player's decks to defeat. As they gain cards, they will be able to defeat more powerful decks and their own crypt will become more difficult for opponents to overcome. The player will gain gold for overcoming other crypt decks and for defeating opponents who failed to traverse their deck. Stats will be displayed on a global leaderboard.

Platform

The game is targeted for web platforms, but will be bundled as a desktop app if there is time.

Development Software

IDE	VS Code
Graphics	Aseprite
Sound	Audacity, BeepBox
Engine	Typescript & Pixi.JS
Backend	PocketBase

Genre

Multiplayer, strategy, deck-building, rogue-lite, dungeon crawler,

Target Audience

CryptDeck is focused on a demographic that desires the connected play of multiplayer games without relinquishing the convenience of playing solo. It will appeal to players who enjoy physical, slower paced strategy games.

Concept

Gameplay overview

A player will navigate through an opponent's crypt until the opponent's deck is exhausted. As cards are revealed, the player will have to use cards (or brew new cards) from their own crypt deck to overcome obstacles and monsters. When an obstacle is overcome by the player, they will have the opportunity to add a card to their deck. If a player exhausts their opponent's deck without dying, they will receive gold to buy new cards with, and their deck will be updated in the database for others to battle against. If, however, the player perishes, their deck will

be reverted to its state before the run, and their opponent will win gold for defeating the player. Gold can be used to buy additional cards.

Theme Interpretation (Shadow & Alchemy)

Shadow

Each card has a “shadow” side and a “light” side. The shadow side acts as an obstacle in an opponent’s traversal of the player’s crypt, while the light side acts as an inventory of resources for the player to use when traversing an opponent’s crypt.

This theme was also influential to the setting (a crypt), and the chosen aesthetic and color palette

Alchemy

Cards can be brewed together to make stronger cards, affecting both their light and shadow sides.

Primary Mechanics

Card Types

There are four overarching types of cards within CryptDeck:

- Room
- Tool
- Monster
- Monster Parts

Monster and Monster Part cards each represent one of eight different elements:

- Fire
- Water
- Ice
- Air
- Poison
- Leaf
- Bone

- Flesh

This set of elements will likely be reduced for the MVP

Turn Based

All player actions (except for brewing) take a turn. If a crypt card can take an action, it will do so between player turns.

Exploration

The opponent's crypt deck will deal up to three cards for the player to interact with (this is further explained in navigation). These cards could be entrances to other rooms, monsters to fight, or resources to collect.

Navigation

Each room card has between 1 to 3 pips displayed on the card. When a player clicks on a room card, up to three new cards equal to the number of pips on the selected card will be drawn and cover up the previous three cards. If the number of pips is less than three, blank "wall" cards will cover up any piles that have not been covered by a new crypt card.

Disarming Traps

Some rooms are trapped. A player can navigate through these trap rooms at the cost of some health, or they can use a card from their own deck to disarm the trap. Elemental traps are disarmed by potions of their type's weakness, and physical traps are disarmed by tools. When a player successfully disarms a trap room, they will have the opportunity to add the trap card to their own deck.

Combat

Any monster cards played from the Crypt deck will try to attack the player. A player can damage these monsters by using weapons or potions from their deck. If a monster's health is reduced to zero, the player will have the choice to harvest a monster part card for their deck.

Brewing

Brewing will combine two of the user's cards into one stronger card. A brew must include at least 1 monster part, but can also include a tool or weapon.

- MP + MP -> Potion
- MP + W -> Enchanted W
- MP + T -> Enchanted T

Shadow Sides

Each card type has an associated Shadow Side that will act as crypt cards for opponent players.

- Weapon -> Room
- Potion -> Monster
- Tool -> Resource
- MP -> Resource

Some cards will have a tradeoff between their strength as a light side vs their strength as a shadow side.

Exhausting the Crypt

If a player exhausts all of the cards from their opponent's crypt, they will win an amount of Gold, and their deck state will be saved.

Death

If a player is defeated, any cards they gained in the run will be lost. They will then be given a new CryptDeck to challenge.

Secondary Mechanics

Deck size

Each deck will be 25 cards in size. Any space in the user's deck will be filled with rock / basic room cards. If a user tries to collect cards and already has 25 non-rock cards, they will have to brew or use more cards before they can collect more.

Type weaknesses

Each of the eight elements have two elements that they are weak to and two elements they are strong against. This applies to elemental

traps, brewing, and combat.

Deck Ranking

Decks will be ranked by their difficulty to exhaust. This ranking will be determined by the contents of the deck. The ranking algorithm will likely change throughout development

Killing Other Players

If a player's Crypt Deck defeats another player, they will receive an amount of Gold as a reward. The opponent's username will be added to the user's "graveyard". The player can then view their graveyard to see the list of people they have defeated.

Gold Economy

Gold can be used to buy rarer cards from the shop. Gold equity will be used in the leaderboard as a scoring metric.

Art

Color Palette

We desired a color palette that adhered to the following criteria:

- Fits the theme "Shadow"
- Provides pops of color to help distinguish important information to the user
- Is accessible to colorblind players

This led us to the [Catppuccin](#) palette. We decided to use the macchiato flavor.

Design

The assets will be drawn as low resolution pixel art. Each asset should be as minimalist as possible so that important information can be efficiently conveyed to the player. That being said, the assets should also convey the rustic and ancient magic of an abandoned crypt. This

may be conveyed through elements like ragged edges, pools of liquid, incomplete lighting, etc,

Font

To match the pixel art aesthetic, [Cozette](#) was chosen to display any large blocks of text within the game. Large title text will use the custom lettering developed for the CryptDeck logo.

Audio

Music

Given the minimalistic pixel art, the game's music will be composed in the LSDJ tracker and rendered by a Gameboy Color's sound chip. This recording will then be processed by a reverb and low pass filter to give the impression of it being played by a small speaker inside of a labyrinthine crypt.

Sound Effects

Sound effects will be foley, and recorded in Audacity. Some sounds (cards flipping or coins clinking) will be tied to user interactions, while others (candle flaring, tv static, or monster groans) will be for atmospherics. All effects will be passed through a reverb filter to convey the game being played in an actual crypt.

Game Experience

Controls

Mouse

Movement, Left Click

Keyboard

Escape, Space, Enter (Pause)

Development Timeline

Minimum Viable Product

Assignment	Type	Status	Finish By	Notes
Design Document	Other ▾	Finished ▾	Jul 18, 2024	<ul style="list-style-type: none">Fully pitch for review
Pitch Game	Other ▾	Finished ▾	Jul 19, 2024	<ul style="list-style-type: none">Get feedback on design document
Scaffold Project	Coding ▾	Finished ▾	Jul 19, 2024	<ul style="list-style-type: none">Install packagesDraw game window
Define Data Structures	Coding ▾	Finished ▾	Jul 20, 2024	<ul style="list-style-type: none">GamePlayerCardsCrypt / Deck
Crypt Navigation	Coding ▾	Finished ▾	Jul 21, 2024	<ul style="list-style-type: none">Load cryptWalk through cryptTurn structure
Inventory / Brewing	Coding ▾	Finished ▾	Jul 24, 2024	<ul style="list-style-type: none">Look through cardsUse cardsBrew cardsAdd cards to deckRefill deck with rocks
Combat	Coding ▾	Finished ▾	Jul 25, 2024	<ul style="list-style-type: none">Display healthAdd / remove player healthAdd / Remove card healthElemental

Assignment	Type	Status	Finish By	Notes
				weaknesses
Win / Lose	Coding ▾	Finished ▾	Jul 25, 2024	<ul style="list-style-type: none"> Win game when deck is exhausted Reset game when health is lost Make win / lose menu Save deck state locally to file
Deploy (1)	Coding ▾	Finished ▾	Jul 27, 2024	<ul style="list-style-type: none"> Make sure game works on itch.io CI/CD to gh-pages
Title Screen	Coding ▾	Finished ▾	Jul 27, 2024	
Settings	Coding ▾	Canceled ▾	Jul 27, 2024	<ul style="list-style-type: none"> Music vol SFX vol Mute Reduce motion
Playtesting (1)	Other ▾	Finished ▾	Jul 27, 2024	<ul style="list-style-type: none"> Have friends provide feedback for base game
Live Database	Coding ▾	Canceled ▾	Jul 28, 2024	<ul style="list-style-type: none"> deck state deck rank player stats opponent defeats
Tutorial	Coding ▾	Finished ▾	Jul 28, 2024	Add tutorial + dialogue system
Deploy (2)	Coding ▾	Canceled ▾	Jul 28, 2024	Deploy networked game

Assignment	Type	Status	Finish By	Notes
UI Basics	Art ▾	Finished ▾	Jul 19, 2024	<ul style="list-style-type: none"> • Logo • Card • Card back • Play area • Brew Pad • Dialogue Back •
Rooms	Art ▾	Finished ▾	Jul 28, 2024	<ul style="list-style-type: none"> • Hallway • Two door • Three door • Resource rooms • Trap Rooms
Monsters	Art ▾	Finished ▾	Jul 28, 2024	<ul style="list-style-type: none"> • Leaf • Flesh • Bone • Poison • L+P • L+F • L+B • F+B • F+P • B+P
Brews	Art ▾	Finished ▾	Jul 28, 2024	<ul style="list-style-type: none"> • Health • L+P () • L+F () • L+B () • F+B () • F+P () • B+P ()
Tools	Art ▾	Finished ▾	Jul 28, 2024	
Weapons	Art ▾	Finished ▾	Jul 28, 2024	
Combat Effects	Art ▾	Canceled ▾	Jul 28, 2024	
Card Sound Effects	Audio ▾	Finished ▾	Jul 28, 2024	

Assignment	Type	Status	Finish By	Notes
Ambient Music	Audio ▾	Finished ▾	Jul 28, 2024	
Ambient Sound	Audio ▾	Canceled ▾	Jul 28, 2024	
Playtesting (2)	Other ▾	Canceled ▾	Jul 28, 2024	Friends test networked gameplay
Polish / Creep	Other ▾	Finished ▾	Jul 29, 2024	Add features if time
Deploy (3)	Other ▾	Finished ▾	Jul 30, 2024	Final test deploy + run through
Itch Page	Art ▾	In progress ▾	Jul 30, 2024	
SUBMIT	Other ▾	Finished ▾	Jul 31, 2024	<ul style="list-style-type: none"> • Make sure master is up to date • Build game from master • Make sure game runs • Submit to itch • Submit Game Design Doc

Scope Creep

Boss Cards	Not started ▾	
Recipe Codex	Not started ▾	
Card Shop	Not started ▾	
Challenge Specific CryptDecks	Not started ▾	
Dark Room / Lantern	In progress ▾	
3rd Tier Brews	Not started ▾	

Pick Ax	In progress ▾	
Status Effects	Finished ▾	
Palette Flavor	Not started ▾	
Shaders	Finished ▾	

Player Feedback:

- Selecting vs using a card is difficult to distinguish on the first try
- Weapon pickups are sometimes seen as traps because they share the damage icon
- Potion effects are confusing
 - Some assumed all potions heal
- Cards are difficult to select
- Interface is very nice and intuitive, though it currently feels a little too zoomed in to see the full cards. I can only see the top half of my cards and the bottom half of the logo card. But for an MVP, I love the screen shake when you hit an enemy or are hit by an enemy, that's a great touch
- I'm sure this is already planned, but highlight the card you have selected/the card you are hovering over could be a nice little UX touch. Also highlighting the room/enemy card you are trying to interact with could be beneficial as well
- I am a big fan of deck builders, so I enjoy the core gameplay loop. I am interested to see how some of the more meta gameplay elements end up blending with that core loop.
- Are there any plans to indicate which cards can be used to disarm which room(s)? If it is up to the player to discover, I think that's neat, though it might be useful to have a "memory" mechanic. That is, once a player discovers a card can disarm a particular trap, the game will

"remember" that for them and indicate it can be done in the future. Darkest Dungeon has a mechanic similar to this.

- Super minor nitpick, but blue and red for indicating health lost versus current health is a little confusing for me personally. This is probably due to games like The Binding of Isaac that have temporary hearts in blue and permanent hearts in red. I've just gotten used to that association.
- - Not sure how to tell how much damage I will deal. I initially thought the pips indicated the damage (I thought my stone would deal 1 damage to the plant monster)
 - I think 1 heart = 2 damage. Maybe this could be clearer
- No clear indication which cards are "tool cards" (except maybe lack of pips?), or which rooms can be disabled by which cards (unless it is intended to be trial and error)
 - I was able to disarm all the trap rooms eventually by trial and error
 - There was a bit of intuition to it, but at this point I don't know enough about the mechanics to trust my intuition, so maybe a bit more guidance would be good for the disarming intro
- It is not super clear how the turns flow
 - Which actions (brewing, looting, disarming, attacking) actually take time and will let enemies attack me?
- Once rooms have been looted/disarmed, is there any reason to pick one over another aside from deal quantity