

Design Elective

Name: Luke Tobin

Student Number: 394070

Class: CMV2A

Words: 1726

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Game Identity

Title:

Shift Jump

Summary:

A shapeshifter movement-based platformer where the user can turn into a variety of different creatures and gain their movement capabilities as they transverse through a level.

Genre:

Platformer, Movement based, Fantasy

Target Platform & Audience:

Windows, 15-18+

Design Pillars:

Movement, Options, Forgiving

Goal:

Reach the end point of each room.

Art Style

2D, Retro, Minimal

Mechanics:

Human: Walk, Jump, Shapeshift

Shapeshifting is done via the E or Q key's on PC and the X/B or Square/Circle buttons on controllers. Shapeshifting can only be done once in a room and is reset after dying or by entering the next room.

You can shapeshift into two different animals, a fly or a snake.

Fly: Can fly

Snake: Fast Movement, Can climb up walls.

Similar Games:

Celeste: Platformer with emphasis on movement.

Super meat boy: Platformer with emphasis on movement.

Geometry Dash: Platformer with emphasis on movement, Retro Art Style

Gameplay Structure:

Linear

Game Design

External goals

Designing a sharp responsive movement system

Creating a shapeshifting system

Having a game utilizing the basic principles of character movement for my portfolio

Internal goals

Provide the player satisfaction after clearing a room

Provide the player tension

Give the player choice of approach within a room

Forgiving gameplay

User Goals

Intuitive controls

Be able to utilize the given movement abilities

Be able to see a way to transverse the level in their own way

User Requirements

Be able to understand the controls naturally

Any advanced movement or controls need explanation

Be able to see the whole room to know where to go.

Target Audience

The target audience of the game is young adult or early 20's. The artistic style may also appeal to older audience. The general gameplay flow and artistic style will be more interesting for the age demographic of 15-18 thus they will be my main focus with the design.

Story

A lost shapeshifter awoke at the bottom of a mountain, with ice all around. Their only option was to proceed into the mountain. The player utilizes their shapeshifting capabilities in order to transverse the mountain and reach the top. Each level brings them to a new environment, with varying hazards and techniques needed to be learned.

Gameplay

The player is able to move around with an intuitive control scheme.

Action	Keyboard	Controller
Walk	W / A / S / D	Left Joystick
Jump	Space	A (Xbox), X (PS)
Fly - Flying	W / A / S / D in Direction	Left Joystick in Direction
Snake - Climbing	W up a wall	Left Joystick Up
Shapeshift	Q (Fly) / E (Snake)	X/B (Xbox), Square/Circle(PS)

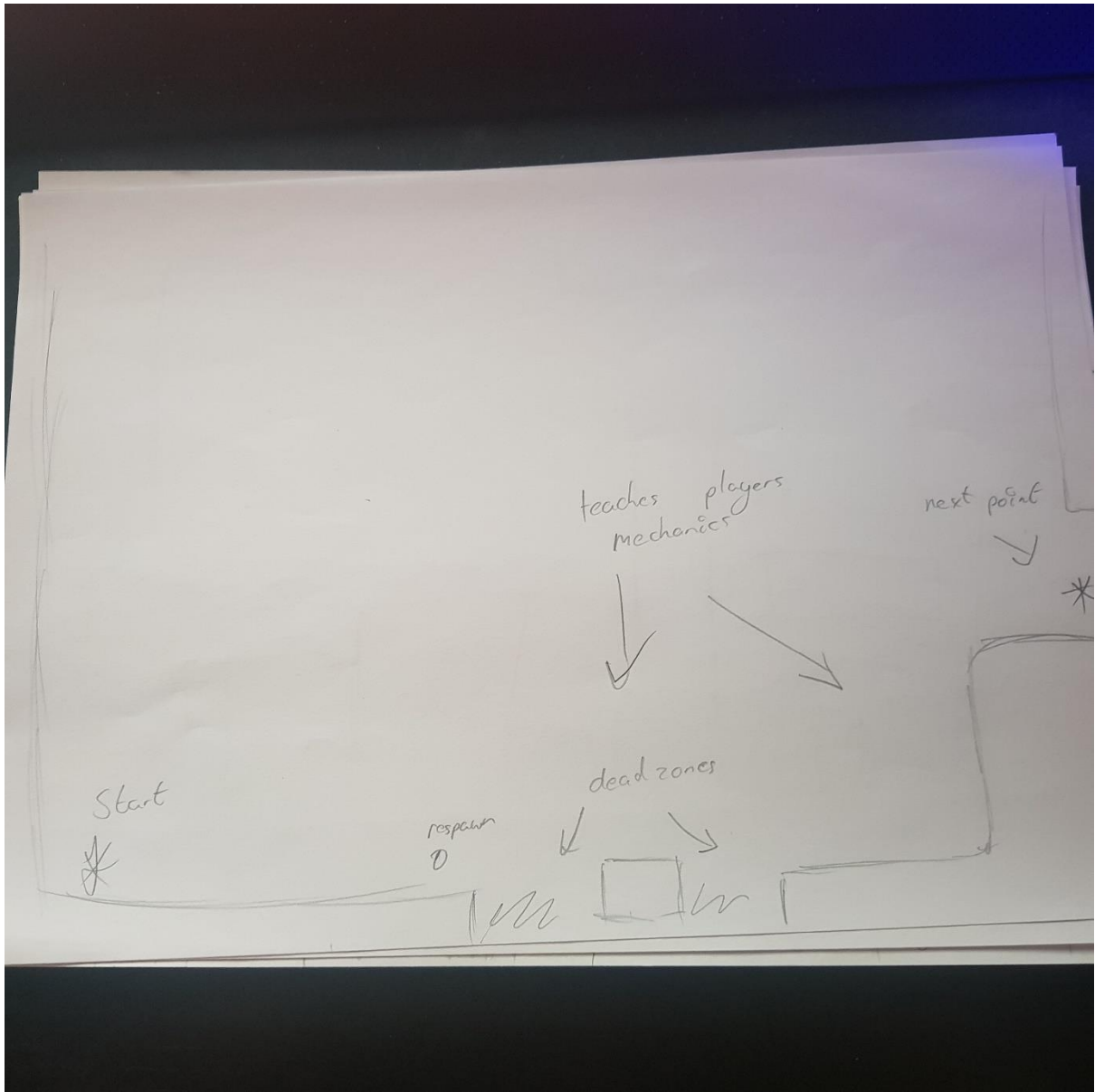
The player is capable of shapeshifting for a limited time, once during a room with a visual indication when the form is on cooldown. The player must carefully handle how they use their shapeshifts throughout a room. If the player dies or reaches a new room, they are able to shapeshift once again. The player is told via the interface which buttons to select in order to shapeshift into one of the selected forms.

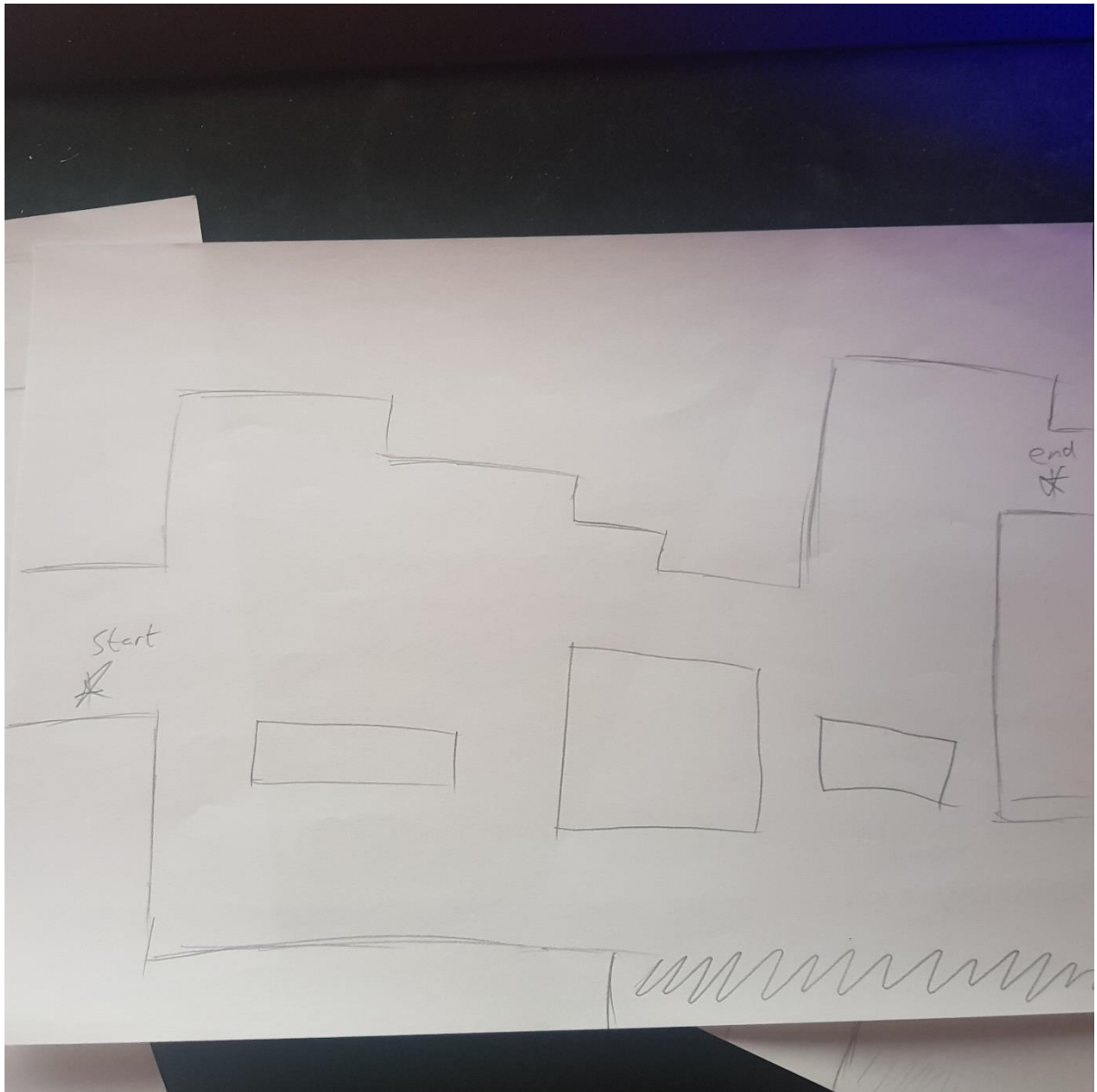
Rooms are typically designed leading the player from left to right. Although not all rooms end on the right, the flow is still pulling players through in a certain direction. Once the player travels through a end point of a room, they are immediately brought to the next, resetting all their cooldowns of shapeshifting and creating a new checkpoint location.

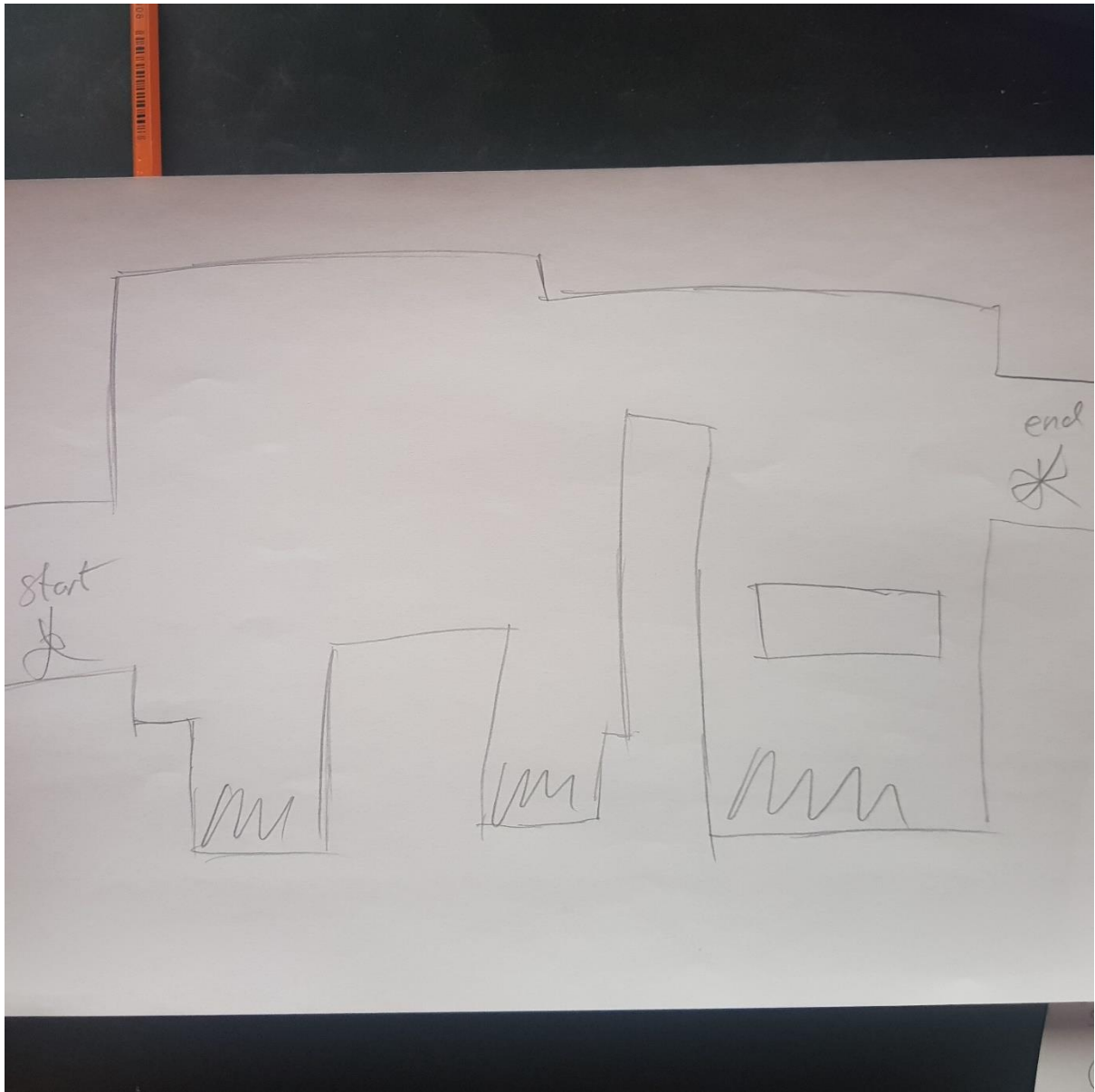
If the player falls into the black areas on the map, the player restarts the room and the cooldown of using shapeshifts are refreshed. This forgiving gameplay design allows for more freedom of trying different methods to transverse a room, which was one of the major goals I was aiming to achieve.

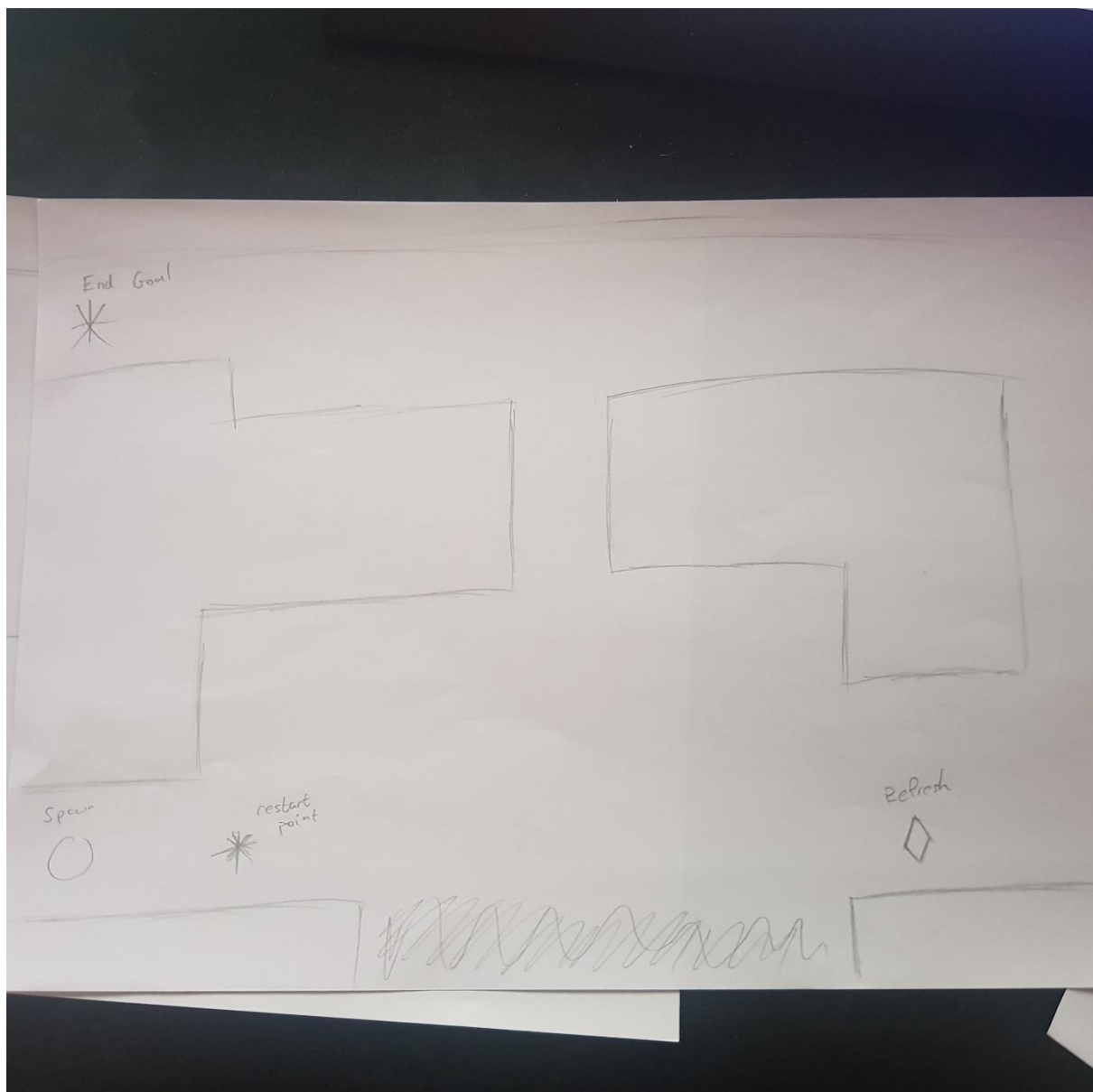
Annotated Maps

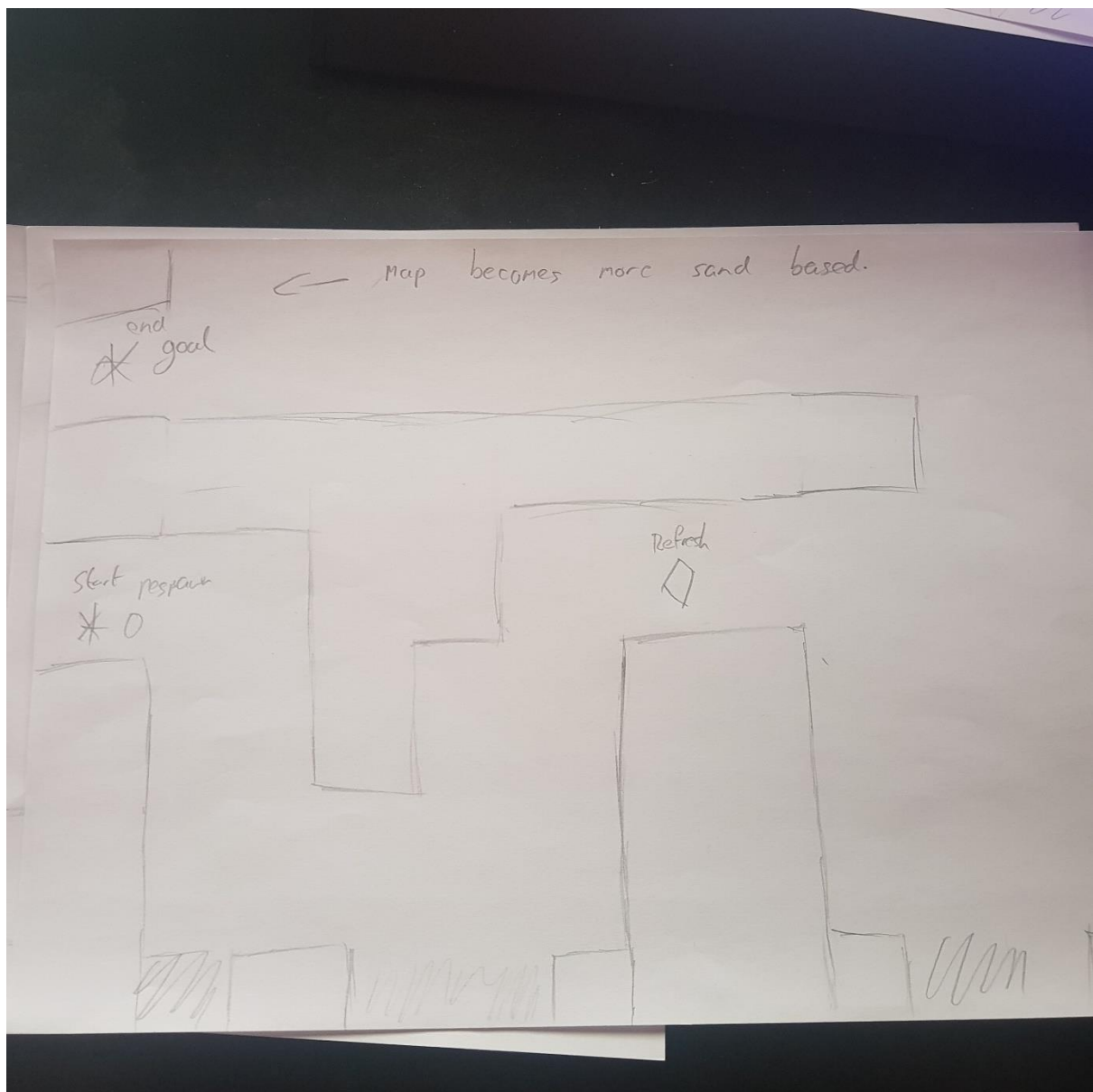
Due to a single level of my game being made of a series of rooms, I created a variety of sketches / annotated maps of the design layout of the rooms.



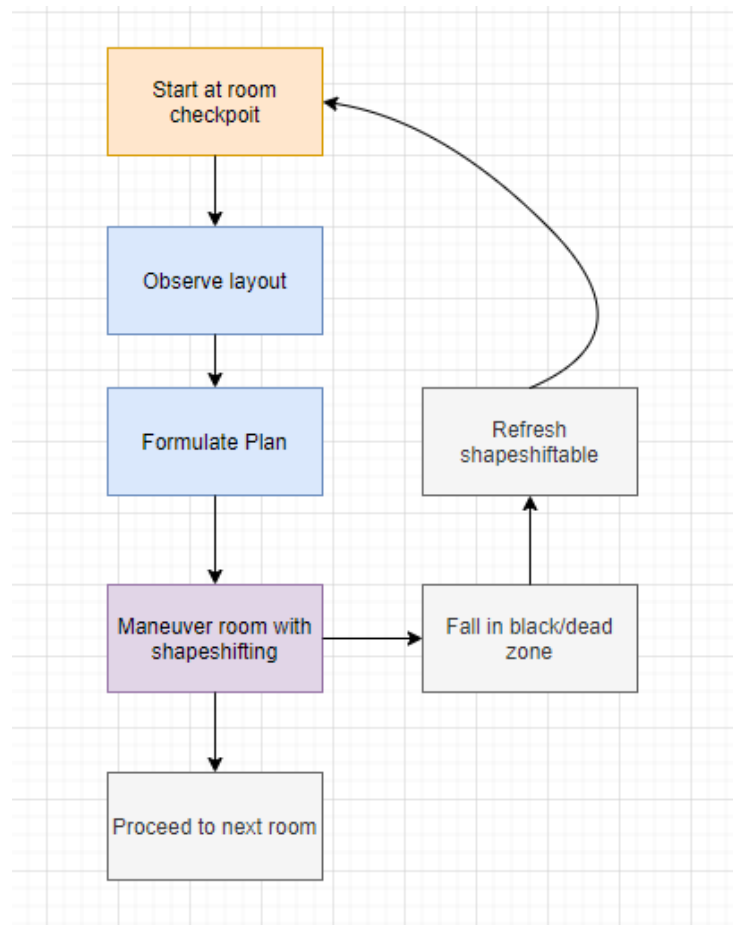








Gameplay loop



Beat Chart

Goal	Reach the end of a room, using shapeshifting
Shapeshift-able	Fly & Snake
Assets	Flora (tall grass, trees, dead tree stumps)
Location	Dangerous Ice Based Cave
Obstacles	Landscape
Rewards / Power-ups	Shapeshift Refresh
Style	Cold, Dark

The beat chart gives a general overview of each room within the level.

Rules

The player can jump.

The player can only shapeshift to 1 animal once per room.

The player can't leave the boundaries of the room.

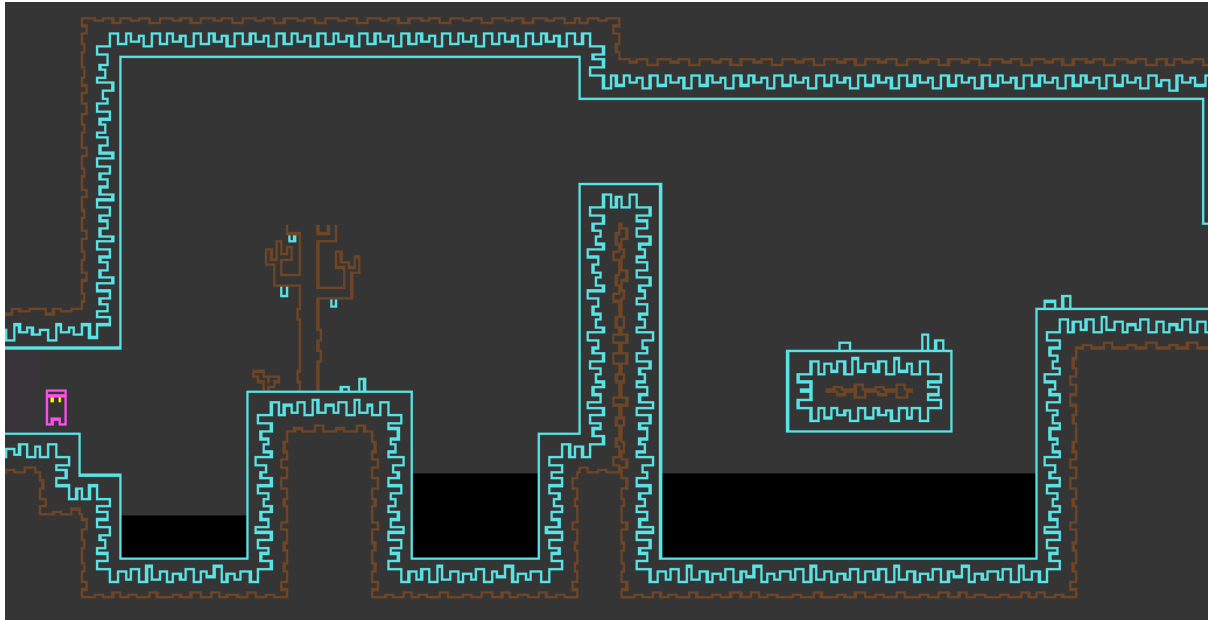
The player can jump into the black areas of the map to kill the character and reset that room.

The player can only stay shapeshifted for a certain amount of time (varying based on animal)

Style

The style of the game takes after a retro 2D pixel art style. The art has heavy emphasis on using lines and negative space to create and visualize the artwork. The retro art style and music will help

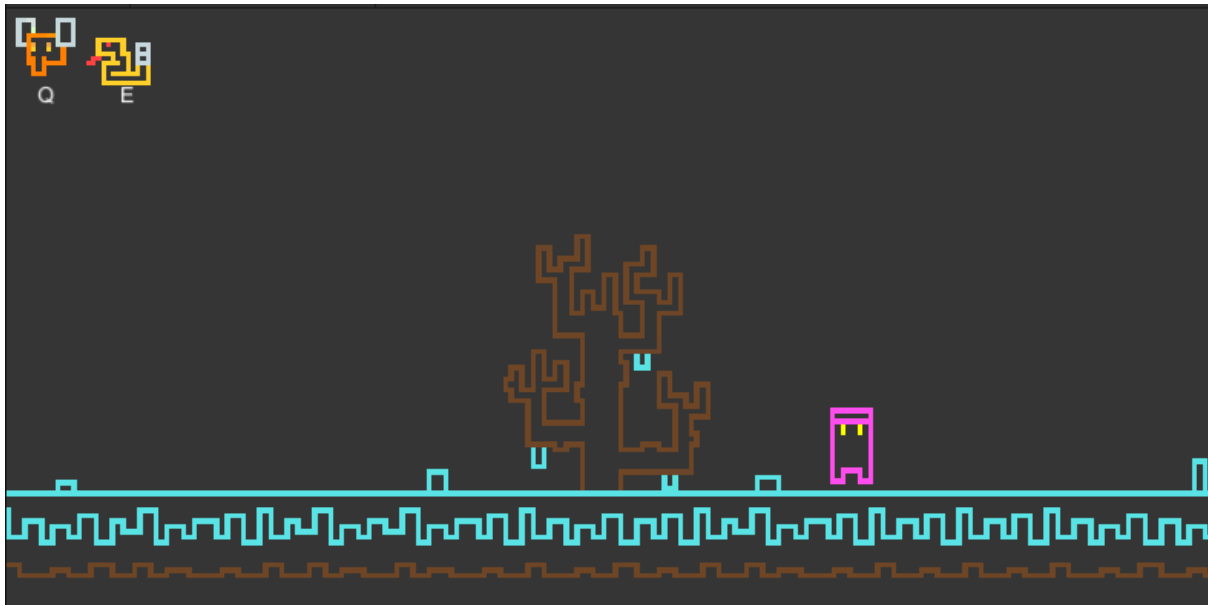
entrance the player within the world. This form of art style helps the player stay more connected with the gameplay and have clear distinctions between certain parts of the world. The simplistic and minimalistic art style lets the level design lay out clear paths for the player. Use of brighter neon colors to clarify certain parts of the games such as surfaces and the player, allow the player to more easily find where the need to go, use of darker colors around edges and inside the dirt or flora allow to add more scenery to the world without obstructing the view of the player or making their path unclear.



The background color of the rooms are a dark grey to add greater contrast to the lighter neon colors and helping with guiding their available path. Most of the flora was kept as either a similar color to the ground if they were small, to merge with the tile and not cause obstructions and larger flora was colored in a darker tone similar to the dirt under the tiles. This was done also to prevent any issues with clarity. A simple a small color palette was used to make clear distinctions being regions.

Interface

The interface of the game should be very bare, as the main focus of the game is within utilizing movement. The only available element shown on display, is the indication of which shapeshift-able animals are currently available and which buttons should be pressed to complete this. The reason for this is to not over-clutter the screen and take away from the main objective of the gameplay.



Technical

Technical Framework

Platform: PC

Perspective: 2D

Screen-size: Full screen

Game Engine: Unity [2019.3f]

Physics Engine: Unity Integrated

Animations: Spritesheet

Controls: Keyboard, Controller

Movement: W / A / S / D, Left Joystick

Jump: Space, A/X

Shapeshift: Q / E (Keyboard, X / B (Xbox Controller), Square / Circle (Playstation Controller))

Choice of tool

For this project I decided to go with Unity. The reason for this was not only because it was the development engine I'm most comfortable with, but also it fits the needs of what I intended to create. Unity 2D offers an incredibly easy and supportive platform for creating quick, fast and functional 2D games. With Unity utilizing C#, I don't need to worry about garbage collection which other languages would encounter, and I won't have to worry about performance issues due to this. Unity's easy to use tilemap system allows for me to quickly and effectively create levels and designs with rapid-fire prototyping, allowing me to test my annotated maps quickly.

Feedback & Iterations

Feedback points

I play tested the game with a few people over discord to find out their reactions and how they found the game, everyone really enjoyed the mechanic and it was a joy to watch them play my game. The general gameplay was easy to engage with and people we're able to transverse maps in unique ways in no time.

Some of the main feedback points I had received we're the lack of information given to the player at the beginning. Without receiving a synopsis of the game, it may have taken them a longer time to how to play.



To tackle this, I added sprites to the background of the scenes to give players an indication of what they needed to do on the tutorial room.

Future Iterations

In future iterations of the game, I wished to add more unique animals to open up more unique possible routes. Currently the snake animal feels like a weaker version of the fly and may require some future tweaking.

Some players who tested the game mentioned adding a form of refresh point in a room to allow for levels to be more expansive and more capabilities opened up for them. I would definitely want to look into this, as it allows me to even potentially open up the room size even more. This lack of information given to the player when they can't see the entire room, could add to the tension as they won't be able to plan out how they intend to move with their shapeshifting forms.

Special Effects & Sound Effects we're something lacking in the current version due to time constraints so they're something I wanted to get into the game in future updates to add more to the feel and immersion of the game.

One of the final feedback points I received was that the text indication for which button to select to use a shapeshift form was very small and hard to distinguish without looking closely. So to combat this, I wanted to make a more clear and better UI display to show the shapeshift-able form and button needed to be pressed.

Conclusion

In conclusion I enjoyed working on this project, as it opened me up to learning more regarding level design. Although my initial hopes for this course came from wanting to learn more regarding general game design, I was still happy with what came out of it. Designing the level really showed me how difficult creating even a simplistic linear level can be, when you need to take into consideration

mechanics and theories. I still feel the design has flaws in places, but it was a huge learning curve and im happy with the outcome. With my new found knowledge, I want to continue to iteration process and create an amalgamation of additional levels/rooms for the game.

Credits

Original work: V3X3D ~ <https://v3x3d.itch.io/>

Music Production: Lena Raine