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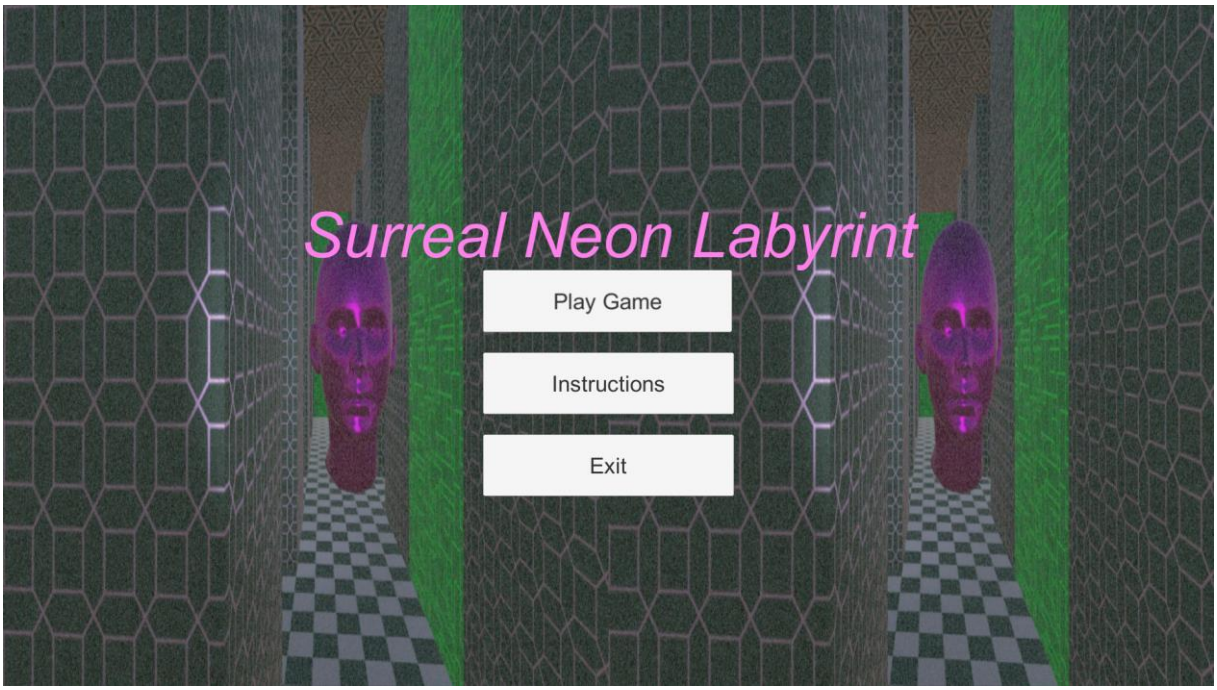

Surreal Neon Labyrinth

GAME DESIGN DOCUMENT

WORD COUNT: 1130

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Introduction

This is a game design document for the game Surreal Neon Labyrinth. The purpose of this document is to thoroughly describe the various game element, mainly: Design, Art and Programing. Furthermore, the Target Audience and the Game Concept will be described in separate sections.

This document will be graded as part of the course *CMD1920 2 Semester 2* | *EL2 Elective Game Design.* Therefore, this will also serve as a showcase for the student's competencies at the various stages of bringing a creative concept into a working prototype/level design.

Game Concept

Surreal Neon Labyrinth is a first-person maze game with indirect combat. The player is trapped inside a virtual maze, constructed of both destructible and non-destructible blocks. The maze is filled with hostile surreal enemies. The player has an unlimited supply of virtual bombs he can use to destroy elements of the maze and kill enemies. To complete the game, the player must go through all the levels. To complete a level, the player must find the exit, which is hidden beneath a destructible block, and then unlock it by obtaining the key from an enemy by killing it. Furthermore, enemies have a chance of dropping a power-up.

Target Audience

Platform

The game is made for PC. It is going to be played with mouse and keyboard. However, the possibility for console and controller implementation will remain open. Furthermore, the nature of the game makes it suitable for VR.

Target Users

Empathy Map

User Requirements

User Objective

Game Design

Game Objective

You're trapped in a digital labyrinth filled with surreal enemies. Your goal is to escape this maze and come back into reality. There are multiple levels. The entrance to the next level is hidden beneath one of the blocks forming the labyrinth. To destroy elements of the maze and fight enemies you have an unlimited supply of virtual bombs. However, you can only place a certain amount at a time. When you kill an enemy there is a chance it drops a valuable power-up.

Game Feel

The game is trying to create the feeling of being lost in the vast digital scape and you're trapped in a virtual maze. This feeling is manifested by the retro-futuristic art style that draws inspiration from synthwave, cyberpunk, classic 8-bit pixel art, 80s nostalgia, etc. The environment will be repetitive and sterile, creating of sense of artificialness.

Gameplay

The game consists of multiple levels with progressive difficulty, but identical core gameplay. Therefore, I am going to describe the gameplay through the lens of a single level. The

complete gameplay will be a sequence of levels with variations in difficulty, map generation, enemies, etc.

The game begins when the player is spawned inside the virtual maze. Your goal is to find the exit and the key to unlock it. The exit is hidden beneath a destructible maze element and the key is dropped by one of the enemies. Walk around and place bombs to open up space in the labyrinth. Careful not to kill yourself with the bomb and always look out for enemies. If you spot an enemy, try to kill them with the bombs you have. After you obtain the key focus on finding the exit. Just systematically destroy blocks until you find. When you step on the exit while having obtained the key you win the game.

Mechanics

Movement

- Standard WASD
- No jump
- Should create a feel of artificialness

Bombs

- Placed by pressing E
- Instantiated on the Node, where the player is currently standing.
- It's instantiated as a trigger, but turns solid after half a second
- After around 3 more seconds the bomb is detonated

Bomb detonation

- Casts a ray cast in all 4 directions depending on the fire range
- Destroys blocks, kills enemies or the player if it is hit by the ray
- Instantiates a laser beam, corresponding to the ray cast
- Laser beam disappears after around 1 second

Enemies

- Kills player if they collide
- Basic AI to move
    - Detects obstacles and chooses a new random direction
    - If an empty corridor is detected, there is a chance the enemy will take it
- Key drop on death
    - Has a small chance to drop the key for the exit
    - If it's the last enemy the drop chance is 100%

Labyrinth generation

- Node-based
- Nodes have 3 states:
    - 0 – Unwalkable
    - 1 – Obstructed
    - 2 –Walkable
- First 2D node array is made
- Unwalkable nodes are always on uneven coordinates
- Obstructed nodes have a variable spawn rate
- Everything else is walkable nodes
- After the node array is generated the labyrinth elements are instantiated based on the individual nodes
- On Unwalkable nodes, Indestructible blocks are instantiated
- On Obstructed nodes, Destructible blocks are instantiated

- On every node, a floor tile is instantiated
- Beneath one random Destructible block, the exit is instantiated
- Variable number of enemies are spawned on random walkable nodes
- The player is always spawned at (0,0)

Dynamics

Indirect combat

The player must strategically place bombs to kill enemies

Exploration

The player must explore the labyrinth to find the exit and kill the enemies

Block destruction

The player can take a strategic decision which blocks to destroy. He can leave corridors with one exit and trap enemies there with a bomb. Or he can clear the entire labyrinth to be able to easily spot enemies.

User Experience

Feeling and Emotions

The game tries to create a feeling of being trapped in a virtual maze, filled surreal creatures. The environment will be artificial-looking, sterile and repetitive. At first, the player will feel confused and disorientated. But he should be able to quickly grasp the digital environment. After he places his first couple of bombs, the player should gain the confidence to explore this surreal labyrinth.

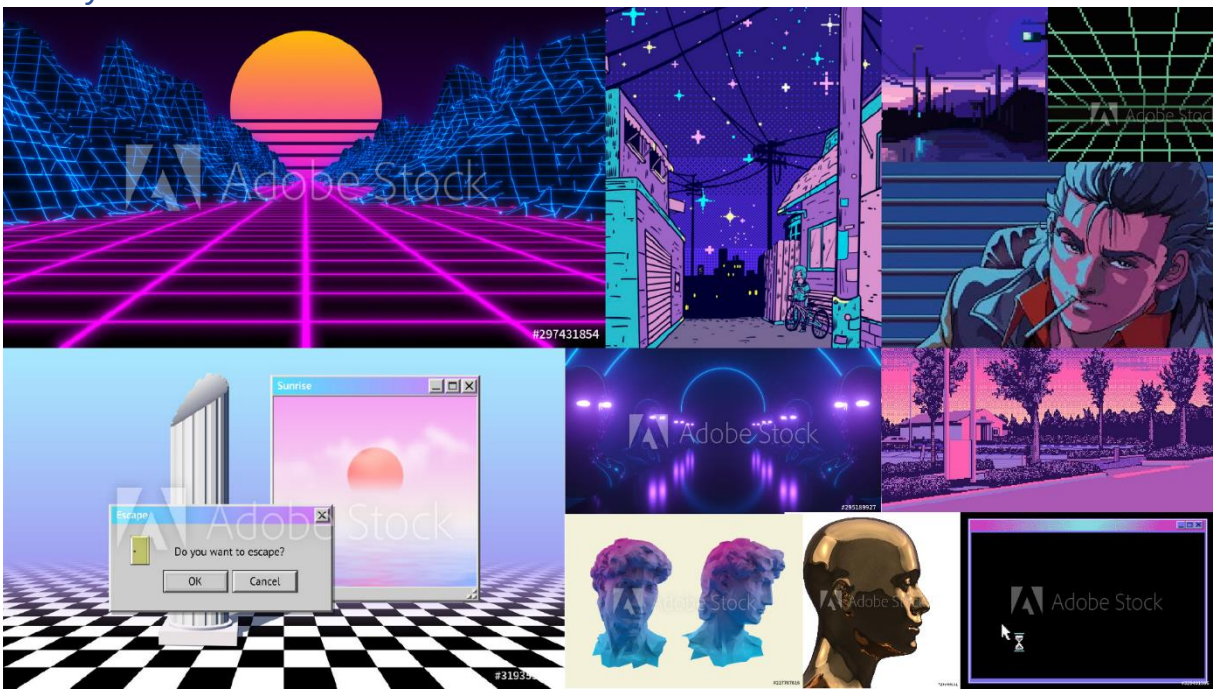
The neon colours will hopefully induce some nostalgia vibes.

User Interface

Stripped down UI reminiscent of Windows98, with neon colours

Game Art

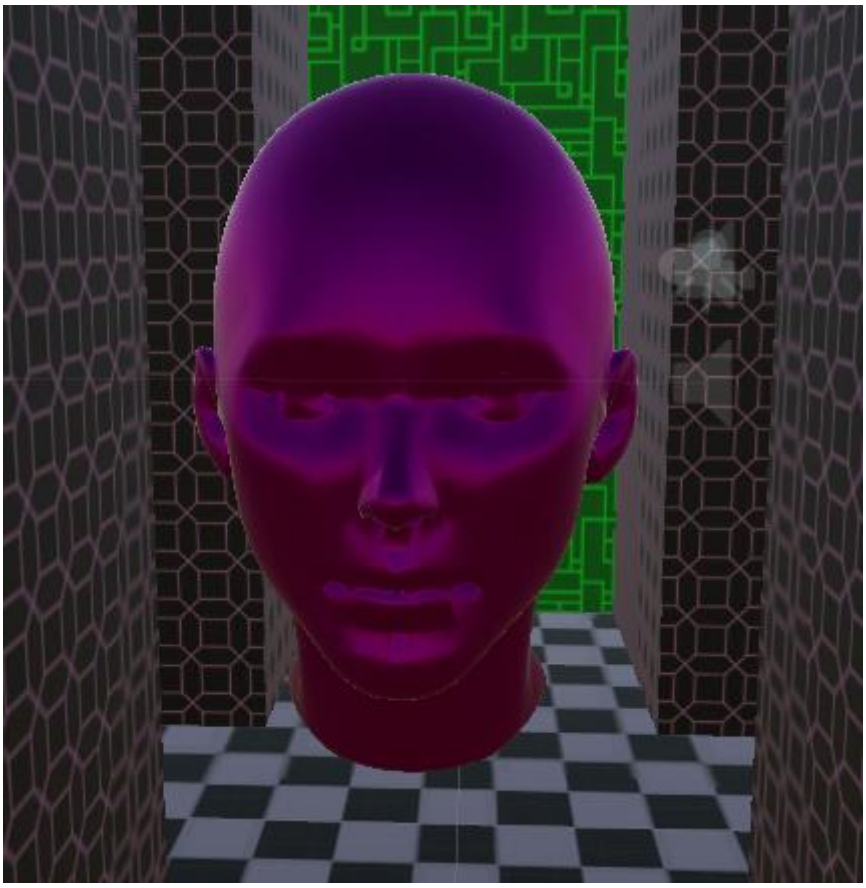
Art style / Aesthetics



The aesthetics of the game are heavily inspired by synthwave and 80’s retro-futurism. The goal is to create a nostalgic vibe of an artificial environment that does not exist. A dream-like surreal place, that a first is confusing, then comforting. But as you encounter enemies you need to get back into the real world.

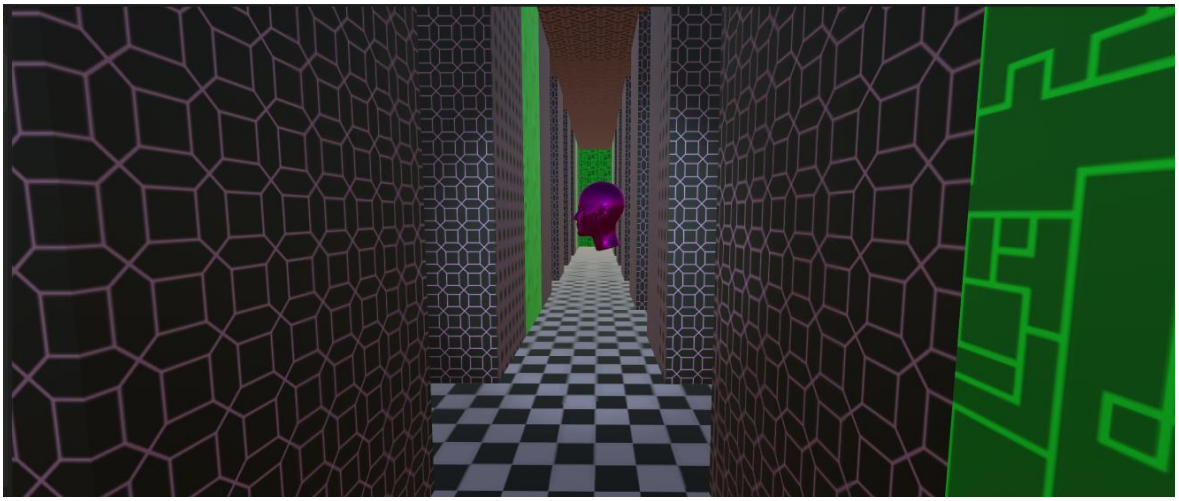
Enemies

Enemies must be surreal. They must look and behave artificially. They should look lifeless.



Environment

The environment must feel surreal



Collectables

Collectables will be made of pixel art icons. They will be a reference to the games from the 8-bit era.

Game Programming

Game Loop

The core game loop will be:

1. Node Generation
2. Labyrinth Instantiation
3. Enemies Instantiation
4. Player Instantiation
5. Game begins
    a. Player moves, he places bombs, etc.
    b. Enemies move
6. Game ends
    a. Player wins
        i. Option to start again
    b. Player dies
        i. Option to start again