Game Design Document

Team Name: Orion
Team Members: Lucas Piccini

Planning

Organisation

Responsibility

For my game development team, it's just me working on this project. I will take on all the roles, including game designer, programmer, artist, and tester. I enjoy doing everything by myself because it gives me a chance to learn and experiment.

Submission Guidelines

To ensure my game meets the submission requirements, I will carefully read the competition guidelines and make a checklist of all the things they ask for. I will double-check my game to ensure it follows the rules and submit it before the deadline.

Workflow

I will develop the components of my game in the following order:

1. Game Mechanics: I will start by programming the basic mechanics of the game, such as player movement, interaction with objects, and basic physics.
2. Environment Design: Once the mechanics are in place, I will work on designing the game world, including the landscape, objects, and elements inspired by the Fallen Sands video game.
3. Game play Elements: Next, I will add interactive elements like tools, materials, and objects that players can manipulate within the sandbox environment.
4. Visuals and Audio: I will focus on creating appealing visuals and sound effects to enhance the overall experience of the game.
5. Testing and Bug Fixing: After completing each component, I will extensively test the game to identify and fix any bugs or issues.
6. Polish and Refinement: In the final stage, I will refine the game play, add additional features, and make sure everything runs smoothly.

I will aim to complete each component before moving on to the next one to maintain a systematic workflow.

Timeline

To meet the competition's requirements, I have planned the following timeline:

- Game development start: 17/05/2023
- Game ready for testing: 04/07/2023
- Testing and feedback implementation: 30 days
- Final game and GDD submission: 07/08/2023

Inspiration and points of originality

The Fallen Sands video game has been a major inspiration for my project. I love the open-world sandbox concept, where players can freely explore and experiment with different elements. I want to capture the same sense of freedom and creativity in my game.

Although there might be other sandbox games out there, my game will stand out because of its unique combination of elements and interactive objects. I believe people will prefer to play my game because it offers a fun and immersive experience with endless possibilities.

Technical requirements

Development Environment

To fulfil my technical requirements, I will need access to the following tools:

- A computer with an internet connection for game development
- A browser capable of accessing the Scratch online platform

System requirements

To play my game, players will need a computer with the following specifications:

- Operating System: Windows or Mac
- Internet browser with Scratch compatibility
- Keyboard and mouse for controls

Resourcing/Capability

- Tutorials and online resources to learn new skills and improve my game design and development abilities
- I will explore online forums and communities to seek guidance and learn from experienced game developers

Designing

Game overview

Game title

The game is called Elemental Sandbox. I chose this name because it reflects the core elements of the game: the sandbox environment where players can freely experiment and the concept of elements that players can manipulate. The name "Elemental Sandbox" gives players an idea that they will have control over different elements and be able to create and destroy things in a sandbox-like setting.

Game description

Elemental Sandbox is a sandbox game where players can unleash their creativity and have fun. The game provides an open-ended experience with no specific objectives or goals, allowing players to freely construct and destruct using various elemental powers.

Players can select and control different elements, such as fire, water, earth, and air. They can build structures, shape the terrain, create intricate patterns, and witness the effects of their interactions. They can experiment with different combinations of elements and explore the endless possibilities within the sandbox.

The objective of the game is to provide players with a space where they can freely express their creativity, build imaginative structures, and experiment with the powers of the elements.

The game is designed for players of all ages who enjoy open-ended and creative experiences. It appeals to those who love to explore and experiment with different possibilities within a virtual sandbox.

The game offers a dynamic and interactive environment where players have the power to construct and destruct using elemental forces. The freedom to experiment, combined with the visual effects and interactive game play, makes it a captivating and entertaining experience.

The game does not feature specific characters, but it allows players to interact with various objects and elements. These objects serve as tools for players to shape the environment and create their own unique experiences.

Environment

The game takes place in a virtual sandbox, a blank canvas where players can freely build, sculpt, and modify the landscape according to their imagination and the powers of the elements they control.

The conditions in the game do not have a direct effect on game play. However, different elements may interact with the environment and other elements, creating dynamic and visually stunning effects.

Theme

This year's theme

This year's theme is "Construction and Destruction."

Link to game

The game fully embraces the theme of construction and destruction. Players have the ability to build and shape the environment with their chosen elements, as well as destroy or modify their creations as desired.

- Players can construct towering structures, intricate landscapes, and beautiful designs using the elemental powers.
- They can also demolish their creations, watching them crumble and reshape the environment in real-time.

Game play/mechanics

Objectives/goals

The aim of the game is to provide players with a creative outlet rather than a specific objective or goal. There is no "winning" or "losing" in the traditional sense. The goal is to explore and experiment with the elements, unleashing the imagination within the sandbox environment.

Players progress by continuously experimenting with different combinations of elements, refining their construction skills, and exploring the endless possibilities within the sandbox. While there are no defined levels or increasing difficulty, players can challenge themselves to create more intricate and visually appealing designs over time.

Perspective

The game is presented from a front-on perspective, allowing players to have a comprehensive view of the sandbox environment and their creations. It is a two-dimensional (2D) game.

Controls

Players interact with the game using the computer mouse or keyboard controls. They can select elements, place them in the environment, and manipulate them using simple click-and-drag or keyboard input.

Instructions/Tutorials

The game includes instructions that guides players through the basic controls and introduces them to the different elemental powers. It provides step-by-step instructions on how to create, manipulate, and experiment with the elements within the sandbox.

Visual and Audio Design

Style

The visual style of the game is vibrant and colourful, aiming to create an immersive and visually appealing environment. It is inspired by the concept of fantasy and magic, featuring captivating visual effects and fluid animations.

The visual design of Elemental Sandbox incorporates the theme of construction and destruction by showcasing the transformative effects of the elemental powers on the environment. The visual effects emphasise the impact and interaction between different elements.
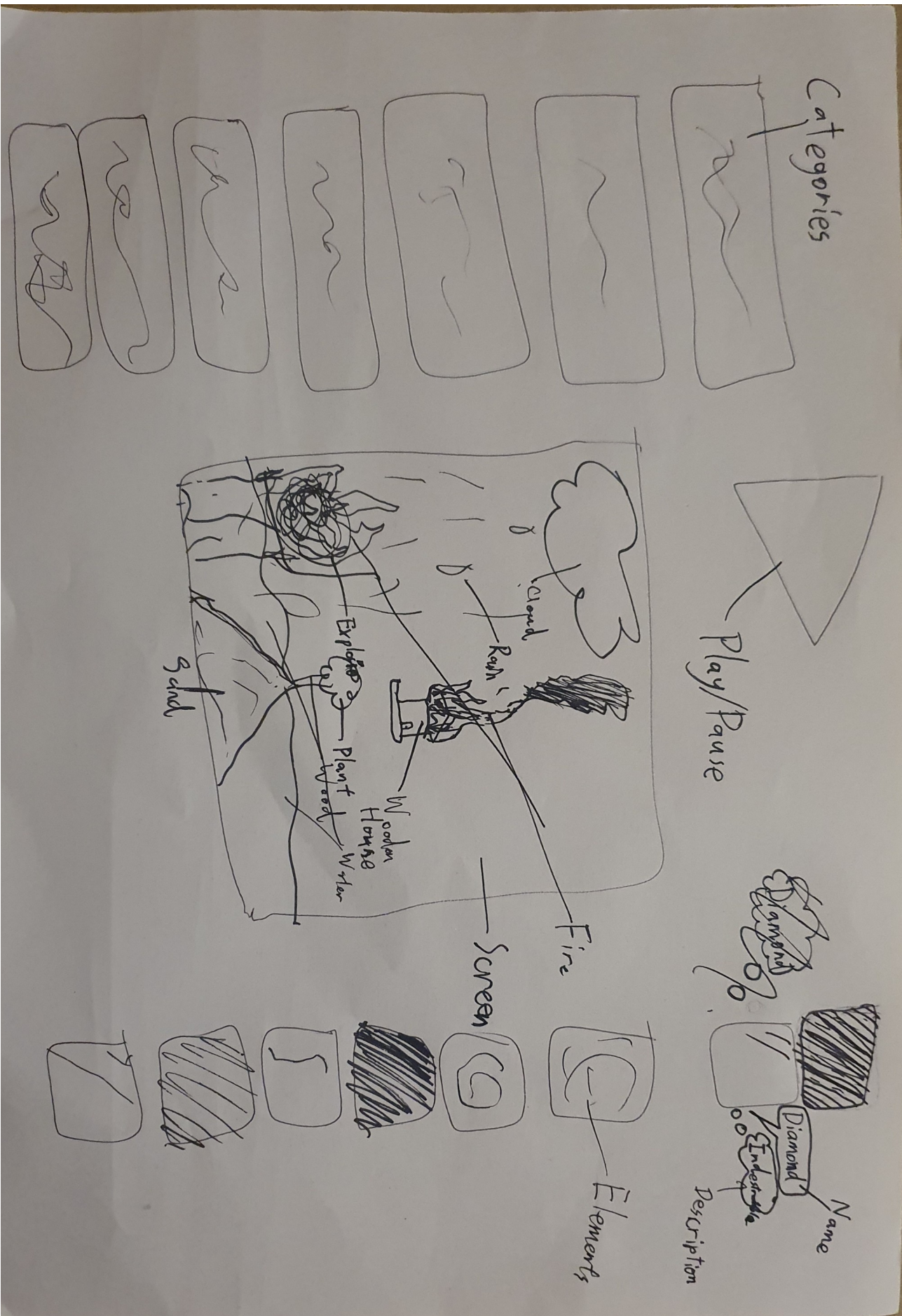
The game predominantly utilises original content created specifically for the competition.
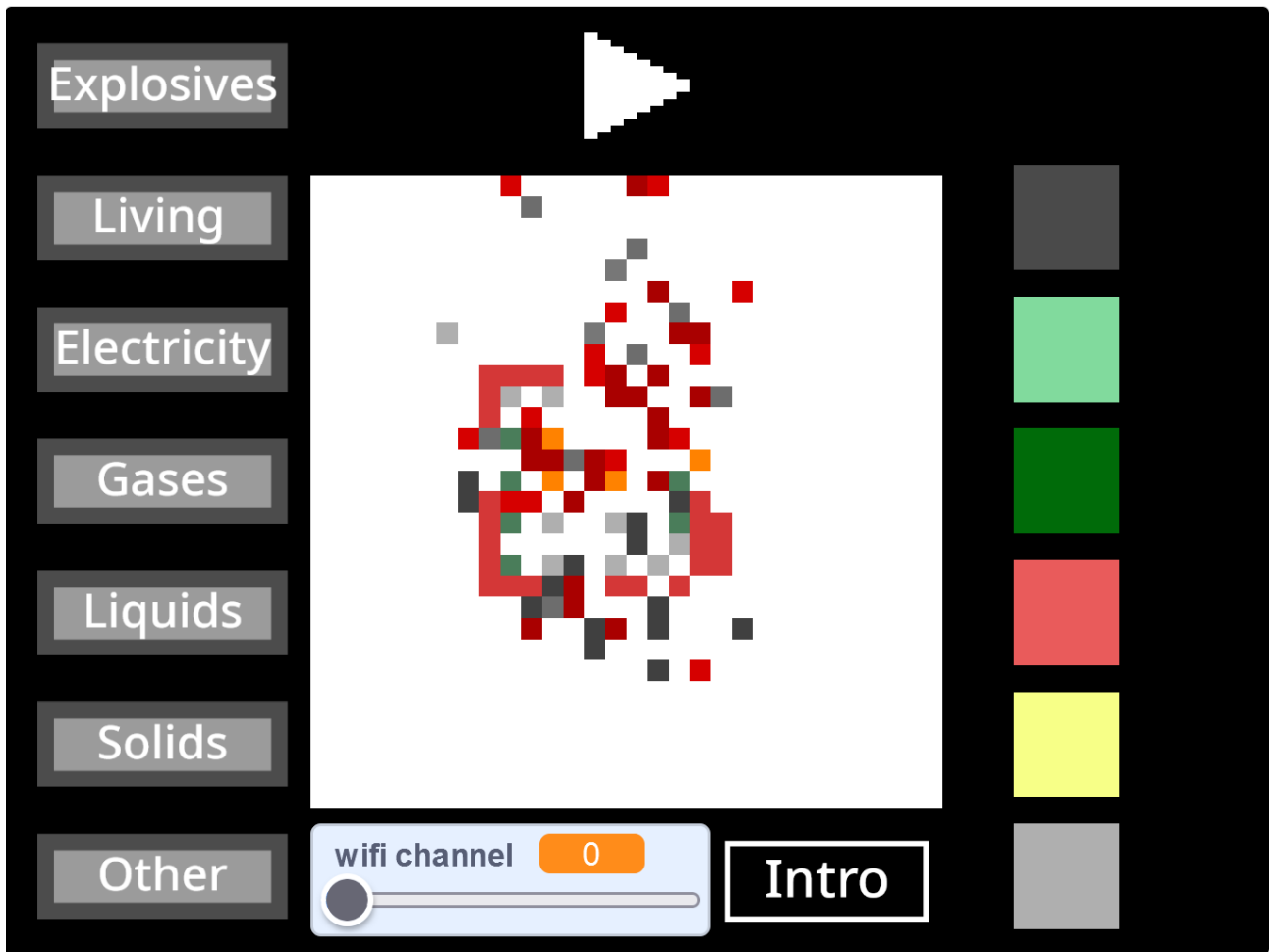
Process

To achieve the desired visual style, I created concept sketches and storyboards to visualise the overall look and feel of the game. I then used digital art tools to design and create the sprites, animations, and visual effects necessary to bring the sandbox environment and elemental powers to life.

From the concept stage, I iteratively developed and refined the game by implementing the core mechanics, designing the user interface, and continuously play testing and gathering feedback. I made necessary adjustments and improvements based on the feedback received to create the final version of the game.
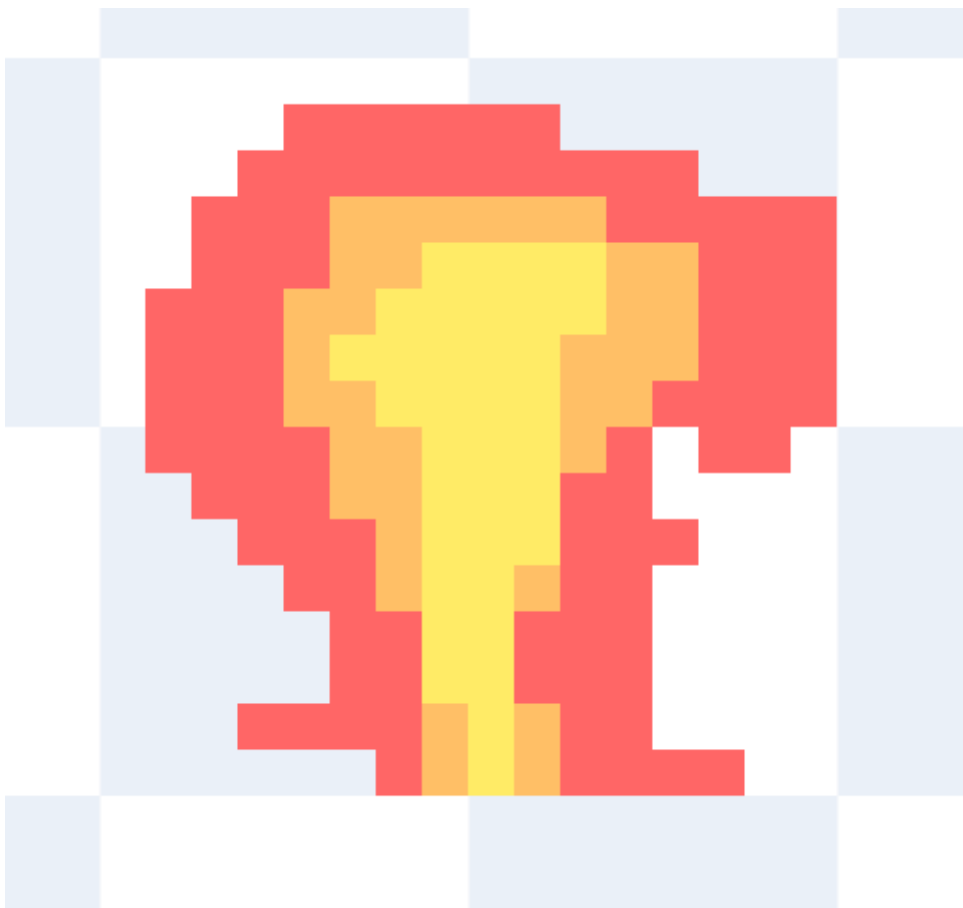
By following this design approach, I was able to bring Elemental Sandbox from a concept to a fully realised game, ready to be entered into the competition.

Categories

Play/Pause

cloud

Rain

Wooden House

Explore

Plant

Water

Sand

Fire

Screen

Elements

Diamond

Diamond

Indestructible

Description

Name

Hand written UI design

Example of metal being exploded

Original placeable explosion texture

Reflecting

Testing, fixing and project execution

Testing

Several people, including friends and family, tested my game to gather feedback and identify areas for improvement. They focused on various aspects, such as game play mechanics, user interface, and overall fun factor.

Fixing

During testing, a few problems were discovered. Some players found certain interactions confusing or encountered minor bugs, like objects not responding as expected. To address these issues, I made adjustments to the user interface, added clearer instructions, and fixed the bugs by adjusting the programming logic.

Project execution

I was able to finish my game within the given time frame and include most of the planned features and mechanics. However, due to time constraints, I had to prioritise certain elements over others, and a few additional ideas could not be implemented.

For future projects, I would like to enhance my programming skills to implement more complex features. Learning advanced coding concepts and techniques will allow me to create even more exciting and interactive experiences in my games.

What Worked Well:

- The sandbox concept was well-received, allowing players to freely explore and unleash their creativity.
- The variety of sand types and interactive objects provided diverse possibilities for experimentation and engagement.
- The top-down perspective and intuitive controls made it easy for players to navigate and interact with the game.

What I Would Do Differently Next Time:

- Enhance the user interface and provide more intuitive guidance for players to understand the mechanics and possibilities of the sandbox environment.
- Include a wider range of interactive objects and environmental elements to further expand the creative options for players.
- Implement a save/load feature so that players can continue their sand adventures across multiple sessions.
- Seek more feedback from a diverse group of testers to gather different perspectives and ideas for further improvement.

Reflecting on my experience, I am proud of what I accomplished with my game, considering my age and experience. It was an exciting journey, and I learned a lot about game design, programming, and the importance of user feedback. I look forward to applying these lessons and creating even better games in the future.