# TP1 Game Design Document

# Game Title: "Sandbox"

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**1. Introduction**

"Sandbox" is an open-world sandbox game that allows player to explore a vast virtual world just for fun.

**2. Game Overview**

**2.1 Game Setting**

1. The game is set in a procedurally generated, expansive world featuring simple landscape. Players will have the freedom to explore these environments and defeat all enemies.

**2.2 Gameplay Goals**

* **Exploration:** Currently players can only explore the world and fight with enemies.

**2.3 Key Features**

* **Bizarre World:** A world floating in the air makes player trembling.
* **Resource Gathering:** Currently there’s no resource to gather, more time needed to add this feature.
* **Building:** The only building is a wall.
* **Character Progression:** Player won’t need any experience since the number of enemies is limited and they are all of the same level.
* **Multiplayer:** The game does not support multiplayer mode.

**3. Gameplay**

**3.1 Core Mechanics**

* **Exploration:** Player can traverse the world by walking (A/S/D/W), jumping (Spacebar) on the floating platforms which deliver player between fixed platforms. Player must first jump then press direction keys to jump higher.
* **Battle:** Player can choose to fight(J) with some wooden dummy liked enemies, they will rotate and hit player but won’t do any harm to player. To fight, player must be very close to the enemy.

**3.2 Challenges and Objectives**

* **Mission:** Reach the central platform and defeat the enemy.

**4. World Building**

**4.1 Terrain Generation**

~~The game features procedurally generated terrain with realistic geological features, ensuring that no two worlds are the same. Terrain includes mountains, valleys, caves, rivers, and more.~~

**4.2 Biomes**

~~Diverse biomes include forests, deserts, snowy tundras, and tropical islands, each with unique flora and fauna.~~

**4.3 Resource Gathering**

~~Players can find resources specific to each biome, such as ores, plants, and wildlife. These resources are used for crafting and building.~~

**5. Crafting and Building**

**5.1 Crafting System**

~~A deep crafting system allows players to combine resources to create weapons, tools, clothing, and decorative items. Recipes are discoverable through exploration.~~

**5.2 Building System**

~~An intuitive building system enables players to construct structures, decorate interiors, and modify the terrain. A variety of building materials and styles are available.~~

**6. Character Progression**

**6.1 Character Customization**

~~Players can customize their characters' appearance, clothing, and accessories, allowing for unique avatars.~~

**6.2 Skill Trees**

~~Skill trees offer character specialization, allowing players to focus on combat, crafting, farming, or other areas of expertise.~~

**6.3 Exploration and Discovery**

~~Exploring the world and uncovering hidden locations and lore contribute to character progression.~~

**7. Multiplayer and Social Features**

**7.1 Multiplayer Modes**

~~Co-op Building: Collaborate with friends on building projects.~~

~~PvP Arenas: Engage in player-vs-player combat arenas.~~

~~Player-Run Servers: Host and customize private or public game worlds.~~

**7.2 Trading and Economy**

~~A player-driven economy allows for trading resources, items, and structures. In-game currency can be used for transactions.~~

**7.3 Community Building**

~~Players can form clans, build communal structures, and participate in large-scale events and competitions.~~

**8. Art and Audio**

**8.1 Visual Style**

~~"High and Dry" features a vibrant and immersive visual style, with realistic environmental details and stunning landscapes.~~

**8.2 Sound Design**

~~Immersive soundscapes bring the game world to life, with ambient sounds varying by biome and dynamic audio cues enhancing the player's experience.~~

**9. Technical Details**

**9.1 Platforms and Engine**

Platforms: Windows 10 or above

Game Engine: Unity

**5.2 System Requirements**

Suggested requirements: Windows10, 32Gb memory, 3Ghz CPU, 100Mb free disk.

**10. Monetization**

**10.1 In-Game Purchases**

* **~~Cosmetic Items:~~** ~~Skins, outfits, and decorative items.~~
* **~~Resource Boosts:~~** ~~Accelerate resource gathering temporarily.~~
* **~~DLC Expansions:~~** ~~Additional biomes, story content, and features.~~

**10.2 Advertising**

~~The game may feature non-intrusive in-game advertising, such as billboards or sponsored events, to support free-to-play versions on mobile platforms.~~

**11. Marketing and Distribution**

**11.1 Marketing Strategy**

* **~~Teasers and Trailers:~~** ~~Release captivating trailers and teasers to generate hype.~~
* **~~Social Media:~~** ~~Engage with the community through platforms like Twitter, Instagram, and YouTube.~~
* **~~Live Events:~~** ~~Host live streams, Q&A sessions, and community events.~~
* **~~Early Access:~~** ~~Provide early access to build anticipation and gather player feedback.~~

**11.2 Distribution Platforms**

* **Steam, Epic Games Store:** PC distribution platforms.
* **~~PlayStation Store, Xbox Store:~~** ~~Console distribution.~~
* **~~App Store, Google Play:~~** ~~Mobile distribution.~~

**12. Development Team**

**12.1 Team Members**

* **Game Director:** Oversees the entire project.
* **Lead Designer:** Responsible for game mechanics and systems.
* **Art Director:** Manages visual assets and design.
* **Audio Director:** Oversees sound design.
* **Lead Programmer:** Manages coding and technical aspects.
* **Community Manager:** Engages with the player community.
* **Marketing Manager:** Handles promotional activities.

**12.2 Roles and Responsibilities**

Detailed roles and responsibilities of team members will be defined in the project's internal documentation.

* **Coder**: Mao Lin

**13. Timeline**

**13.1 Development Phases**

* **Pre-production:** Concept development and prototyping (6 months).
* **Production:** Core development and content creation (18 months).
* **Testing and Polishing:** Bug fixing and optimization (4 months).
* **Beta Testing:** Closed and open beta phases (2 months).
* **Launch:** Official game release (1 month).

**13.2 Milestones**

* **Alpha Build:** Playable alpha version for internal testing.
* **Closed Beta:** Limited access for select players.
* **Open Beta:** Public testing phase.
* **Launch:** Official game release.

**14. Budget**

**14.1 Development Costs**

* **Personnel:** Salaries and contracts for developers.
* **Software and Tools:** Licensing and development software.
* **Marketing:** Advertising and promotional expenses.
* **Server Infrastructure:** Hosting and maintenance.
* **Art and Audio:** Asset creation and sound design.
* **Testing:** Quality assurance and bug fixing.

**14.2 Revenue Projections**

~~Revenue projections will be based on monetization strategies and player engagement, with detailed financial planning conducted throughout development.~~

"High and Dry" is a practice game that offers developer some experience on video game development, have fun with it! ***Please note that this document is originally generated by ChatGPT for getting some inspiration and for a better structure, and most of the original text is kept for the completeness of the document even they don’t appear in the game.***

appendix:

