

## Core Features

- **Multiplayer Compatibility:** Supports over 20 players in one instance.
- **User Profiles & Login System:** Username and password login with saved player profiles, allowing players to log in and access saved stats.
- **Static Map Design:** A single uniform map is used for each game, designed with balanced spawn points for items and resources.
- **Items and Weapons:**
  - **Weapons:** Various firearms, melee weapons, and grenades, each with distinct stats (damage, fire rate, range).
  - **Items:** Healing items (e.g., medkits, bandages), armor (helmets, vests), grenades, and resource-gathering tools.
- **Damage Zone:** Gradually shrinking safe zone starting from the map's edges, forcing players toward the center.
- **Resource Gathering and Building:**
  - **Resources:** Players can collect wood, stone, and steel with a pickaxe.
  - **Building Mechanics:** Players can construct breakable walls to block bullets, with varying durability based on material.
- **Redemption Room:** Separate game mode for eliminated players, allowing re-entry upon achieving one kill, closing when only a third of the original players remain.

## Functionality and Mechanics

### 1. Login and Profile Management

- Players create accounts with usernames and passwords.
- Saved stats and progress include kill count, death count, resource inventory, and win count.
- Profiles store player ranks, achievements, and customization options.

### 2. Game Lobby

- Players wait for the game to reach a minimum player threshold.
- Brief tutorial or loading screen tips explain controls, building, and Redemption Room mechanics.

### 3. Map Layout and Spawn Points

- **Uniform Map** with randomized item spawn locations and resource zones (wood, stone, steel).
- Defined high-ground and low-ground areas, adding a strategic advantage in certain locations.

### 4. In-game Items and Weaponry

- **Randomized Item Spawns:**
  - Weapons (shotguns, rifles, etc.) spawn at varied map points.
  - Healing items and armor spawn in designated “safe zones” (medical tents, ammo crates).
- **Item Effects:**
  - Healing items replenish health over time.
  - Armor reduces damage received until its durability is depleted.

## 5. Shrinking Damage Zone

- **Zone Mechanics:**
  - Initially circles the map’s edges, shrinking toward the center.
  - Shrinks at regular intervals, with visual warnings and countdowns.
- **Player Damage:** Health decreases gradually when in the damage zone, increasing as the game progresses.

## 6. Resource Gathering and Building

- **Resource Collection:**
  - Players start with a pickaxe and can gather wood, stone, and steel from designated zones.
- **Building:**
  - Quick-access building menu allows for fast wall placement.
  - Walls have durability based on material:
    - **Wood:** Lowest durability, easiest to gather.
    - **Stone:** Medium durability, moderate availability.
    - **Steel:** Highest durability, scarce.
- **Destructible Walls:** Bullet impacts reduce wall durability until they collapse.

## 7. Combat Mechanics

- **Shooting and Reloading:**
  - Simple aiming with reticle, reload timer for weapons.
  - Headshots and body shots deal variable damage.
- **Grenade Throwing:** Limited grenades with an explosion radius, able to damage walls.
- **Health Recovery:** Healing items activate over time, forcing strategic use mid-combat.

## 8. Redemption Room (Elimination Mechanic)

- **Separate Gameplay:**
  - Eliminated players enter a respawn-enabled map called the Redemption Room.
  - Objective: Eliminate one other player to earn re-entry to the main game.
- **Gameplay Variance:**
  - Respawn after each death, allowing rapid re-entry to focus on finding one kill.
  - Restricted when only a third of players remain in the main game.

## User Flow and Experience

1. **Account Login:**
  - Players log in, load saved profiles, and enter the game lobby.
  - Returning players can view stats, achievements, and profile customization.
2. **Game Lobby and Match Start:**
  - Players enter the lobby and wait for enough players to join.
  - Match begins with a countdown, spawning all players at randomized positions.
3. **Game Start and Item Collection:**
  - Players immediately begin exploring, and collecting resources and items.
  - A map indicator displays the initial safe zone boundary and shrinking timeline.
4. **Mid-Game (Building and Combat):**
  - Players engage in combat, using weapons and healing items.
  - As the damage zone shrinks, players are forced toward the center, intensifying interactions.
  - Gathering resources for building becomes a priority, especially for defensive cover.
5. **End-Game:**
  - With only a third of players remaining, Redemption Room access closes.
  - Final safe zone shrinkage limits player movement, forcing last confrontations.
6. **Post-Elimination (Redemption Room Flow):**
  - Eliminated players automatically enter the Redemption Room.
  - They respawn until achieving a single kill, allowing re-entry to the main game if accomplished.
  - If players in the main game drop below one-third, Redemption Room activity halts.
7. **Game End:**
  - Last player standing in the main game is declared the winner.
  - Players are awarded experience points, resource bonuses, or achievements based on performance.

## Interactive Elements

- **HUD Elements:**
  - Health, armor, resource inventory, minimap, current weapon.
- **Interactive Map:**
  - Visual indicators for shrinking safe zone and warning signs for entering the damage zone.
- **Building UI:**
  - Quick-access keybinds for wall placement and remaining resources.
- **Kill Notifications:**
  - Notifications of kills and eliminations, with redemption status for players who re-enter.

## Potential Future Enhancements

- **Player Customization:** Skins, weapon customization, profile emblems.
- **Leaderboard and Rankings:** Showcasing top players globally or in private leagues.
- **Special Events:** Timed events with unique items or map changes.

## Visual Style & Aesthetics

- **Minimalist Vector Graphics:** All elements are rendered as clean, smooth vector shapes, enhancing scalability and maintaining a seamless experience across devices.
- **Single-Color Elements:** Most items, UI components, and objects use a single, flat color to keep visuals clean and distraction-free. For instance:
  - **Players:** One color per player, slightly darker/lighter shades for distinguishing elements like health.
  - **Items:** Simple outlines or icons in distinct colors based on item type (e.g., green for healing items, gray for armor).
- **Top-Down, Moving Camera:** The camera follows the player, keeping them centered on the screen, which allows the player to navigate the map freely.

## Color Scheme

- **Muted Primary Colors:** Dominant colors include shades of gray, green, brown, and blue, with flat, muted tones for the map.
- **High-Contrast Accents:** Minimal use of bright accent colors (like red for the damage zone and yellow for item indicators) helps essential game elements pop without overcrowding the visuals.
- **Layered Backgrounds:** Subtle layering of map elements, with lightly shaded zones for easy navigation and differentiation.

## Typography

- **Ultra-Simplistic Sans-Serif:** Simple, rounded sans-serif font for all text elements. Primary HUD info uses slightly larger, bolded text for visibility.
- **Monochrome Text:** Single-color text in white or dark gray, adapting based on contrast needs for easy reading against any background.

## Layout

- **HUD and UI Elements:** Placed in consistent, compact locations:
  - **Top Corners:** Health and resource counters are in one corner, and a minimap with damage zone indications in the other.
  - **Inventory Bar:** Clean, horizontal strip along the bottom, showing weapon and item slots in a single line with icons.
- **Building and Resource Controls:** Streamlined icons for building resources and pickaxe, near the bottom-right for easy access, but low-profile to keep the screen clean.