# They Are In By Unity

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***Abstract:*** *They Are In is an immersive 3D survival action game developed with Unity. In this game, players must navigate a post-apocalyptic environment while fending off waves of enemies. Both the player and enemies are equipped with firearms, engaging in continuous combat as the player moves backwards to evade attacks. The player's health is set to 10, while enemy health is set to 1, making strategic movement and shooting crucial for survival. As the player retreats, they encounter two gates on the road, each representing a mathematical calculation (+2 and +3). Passing through these gates increases the number of players accordingly. For instance, if the player passes through the +3 gate, their team size increases tofour members, all of whom will then join in firing at the enemies. When the players reach the end point, they form a line and collectively shoot towards the approaching enemies. The game incorporates advanced AI to drive enemy behavior, ensuring that enemies continuously pursue the player, shooting and attempting to make contact to inflict damage. Enemies can kill the player through shooting or physical contact. The game is structured into five levels, each increasing in complexity and difficulty, challenging the player's strategic and combat skills progressively. They Are In features high-quality animations, immersive sound effects, and aims to provide the best possible gaming experience. The combination of dynamic combat, strategic team growth through mathematical gates, and escalating level complexity offers players an engaging and replayable challenge in a visually rich 3D environment.*

## I.INTRODUCTION

They Are In immerses players in a high-stakes 3D survival action experience set within a desolate, post-apocalyptic landscape. Developed using Unity, this game challenges players to defend against relentless waves of enemies while strategically maneuvering through dynamic environments filled with obstacles and strategic opportunities. In They Are In, players assume the role of survivors navigating a world overrun by hostile forces. Armed with firearms and faced with dwindling resources, players must employ tactical retreats and strategic positioning to survive enemy onslaughts. The game's core mechanic involves players moving backwards, continually engaging enemies while managing their own health and resources effectively. A unique aspect of They Are In is the inclusion of strategic gates along the gameplay path. These gates present mathematical challenges, such as +2 and +3, which, when successfully navigated, increase the player's team size. This dynamic not only enhances firepower but also introduces a strategic layer where players must decide between immediate engagement or augmenting their team for future encounters. Powered by advanced AI, enemies in They Are In adapt their tactics based on player movements and actions. They relentlessly pursue, employing ranged attacks and close- quarters combat to eliminate the player. This adaptive AI ensures that each encounter remains dynamic and challenging, requiring players to continuously evolve their strategies to survive. The development of They Are In leverages Unity's robust 3D game engine capabilities. From designing intricate levels using Unity's terrain editor and skybox features to scripting complex AI behaviors and integrating realistic physics, the game aims to deliver a visually stunning and immersive experience

## II.RELATED WORK

Similar Games in the Survival Action Genre: Review and analyze existing games that feature survival

action gameplay mechanics, base building, strategic elements, and dynamic enemy AI. Examples may include titles like "The Forest," "Subnautica," and "7 Days to Die."

Research on AI in Video Games: Explore academic and industry research on AI-driven behaviors in video games, focusing on adaptive AI algorithms, pathfinding techniques, and decision-making processes that enhance gameplay dynamics and challenge.

Unity Game Development Case Studies: Study case examples of successful Unity game projects that emphasize immersive environments, multiplayer functionality, and effective use of Unity's tools and features for game development.

User Interface Design in Games: Examine best practices and case studies in UI/UX design for games, particularly those that optimize player interaction, information display, and usability across different platforms.

Monetization Strategies in Freemium Games: Investigate monetization models employed in freemium games, including in-app purchases, cosmetic enhancements, and other revenue- generation strategies, with a focus on balancing player engagement and financial sustainability.

## III.METHODOLOGY

Let us discuss the various methods and strategies used for tracking and detecting objects(students).

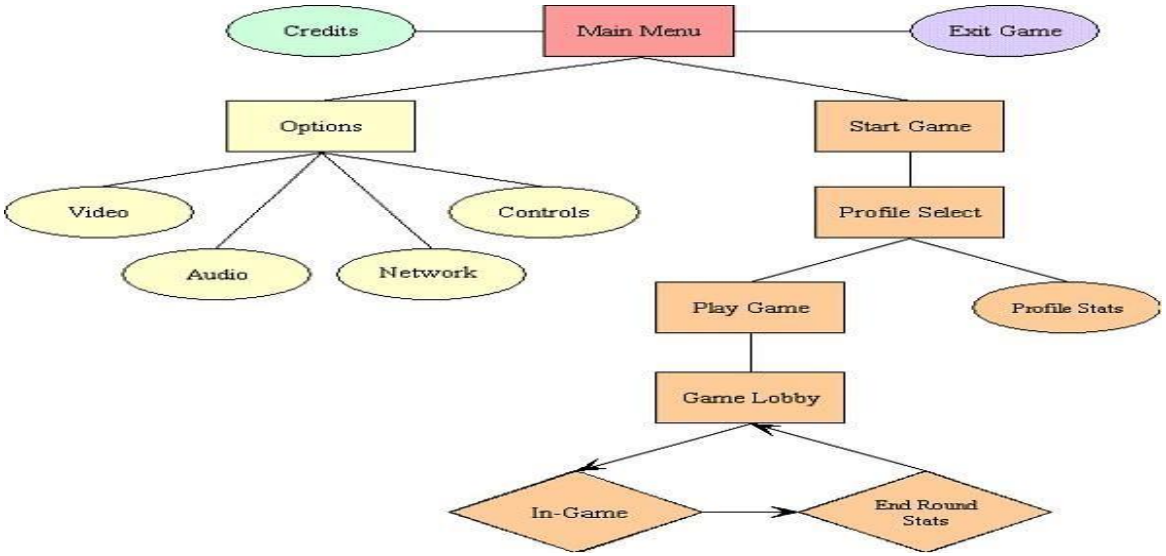



Fig 1.Methodology Of They Are In

1. Credits:

- Function: Displays acknowledgments for individuals or organizations involvedin the development of the game.
- Implementation: Typically accessed from the main menu or options menu,providing a list of contributors and their roles in the project.

2. Exit Game:
   - Function: Allows the player to exit the game and return to the operating systemor main device menu.
   - Implementation: Can be accessed through a dedicated button in the main menu,pause menu during gameplay, or via keyboard shortcut (e.g., Esc key).
3. Main Menu:
   - Function: Serves as the central hub for accessing various game functionalities such as starting the game, adjusting settings, viewing credits, and exiting the game.
   - Implementation: Designed with intuitive navigation, typically featuring buttons or icons for different menu options (e.g., Start Game, Options, Credits, Exit).
4. Options:
   - Function: Provides settings and customization options for video, audio, controls, and other game preferences.
   - Implementation: Includes sliders, checkboxes, and dropdown menus to adjust settings such as resolution, graphics quality, volume levels, key bindings, and language preferences.
5. Video Settings:
   - Function: Allows players to adjust visual settings to optimize performance and visual quality.
   - Implementation: Includes options for resolution, display mode (fullscreen or windowed), texture quality, anti-aliasing, and other graphical enhancements.
6. Audio Settings:
   - Function: Enables players to adjust audio levels and settings for music, sound effects, and voice chat.
   - Implementation: Provides sliders for volume control, mute options, and sometimes presets for different audio configurations (e.g., headphones, speakers).
7. Network Settings:
   - Function: Configures network-related options for multiplayer gameplay, including matchmaking preferences, server selection, and network latency settings.
   - Implementation: Includes options for choosing regions, enabling/disabling cross-play, and managing connection quality.
8. Controls Settings:
   - Function: Allows players to customize key bindings and controller settings according to personal preferences.
   - Implementation: Provides a mapping interface where players can assign actions to specific keys/buttons, invert axis controls, and adjust sensitivity settings.
9. Start Game:
   - Function: Initiates gameplay, transitioning from the main menu to the game environment.
   - Implementation: Typically triggered by selecting a new game mode or continuing from a saved progress state.
10. Profile Management:

- Function: Manages player profiles, allowing for creation, selection, deletion, and customization of individual player accounts or characters.
- Implementation: Includes options for creating new profiles, selecting existingones, viewing profile statistics, and customizing profile settings.

11. Profile Selection:
    - Function: Allows players to choose from existing profiles before starting orcontinuing gameplay.
    - Implementation: Presented in a list format or graphical interface, showingprofile names, avatars, and possibly statistics or progress indicators.

12. Play Game:
    - Function: Starts gameplay sessions within specific game modes or scenarios.
    - Implementation: Offers options to select game modes, difficulty levels, andother parameters before launching into gameplay.

13. Profile State:
    - Function: Represents the current status or progress of a player's profile,including achievements, unlocked content, and in-game progress.
    - Implementation: Displayed in profile selection screens or as part of the mainmenu interface, providing visual cues or textual indicators of profile states.

14. Game Lobby:
    - Function: Acts as a waiting area or staging ground for players to gather beforestarting multiplayer matches.
    - Implementation: Includes chat features, player lists, matchmaking options, andreadiness indicators for coordinating gameplay sessions.

15. In-Game Experience:
    - Function: Encompasses the core gameplay experience where players interactwith the game environment, characters, and objectives.
    - Implementation: Includes game mechanics, controls, HUD elements (e.g.,health bars, minimap), and feedback systems (e.g., audio cues, visual effects).

16. End Game:
    - Function: Marks the conclusion of a gameplay session, providing summaryscreens, rewards, and options to return to the main menu or continue playing.
    - Implementation: Displays game statistics, achievements, and progressionupdates before transitioning back to the main menu or next gameplay phase.

## IV.RESULTS AND ANALYSIS

The "Results" section serves as a comprehensive evaluation of the game's development process and outcomes, providing valuable insights for stakeholders, developers, and future iterations of the game. It demonstrates the project’s achievements, lessons learned, and recommendations for further enhancements based on the findings.

Fig 2. Main Menu Of They Are In


Fig 3. Game End Menu Of They Are In

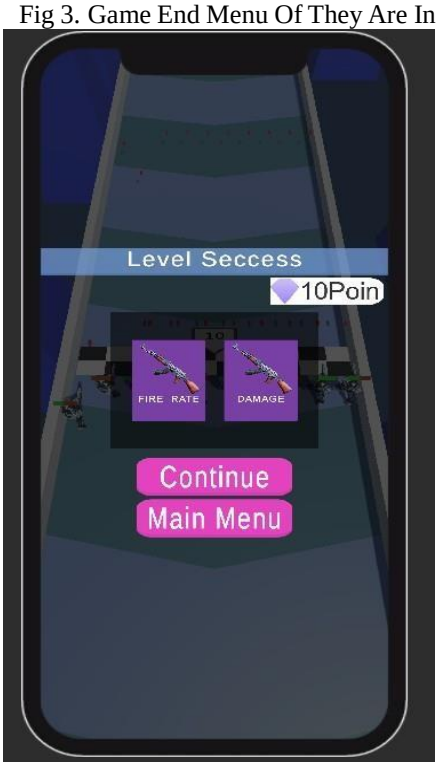
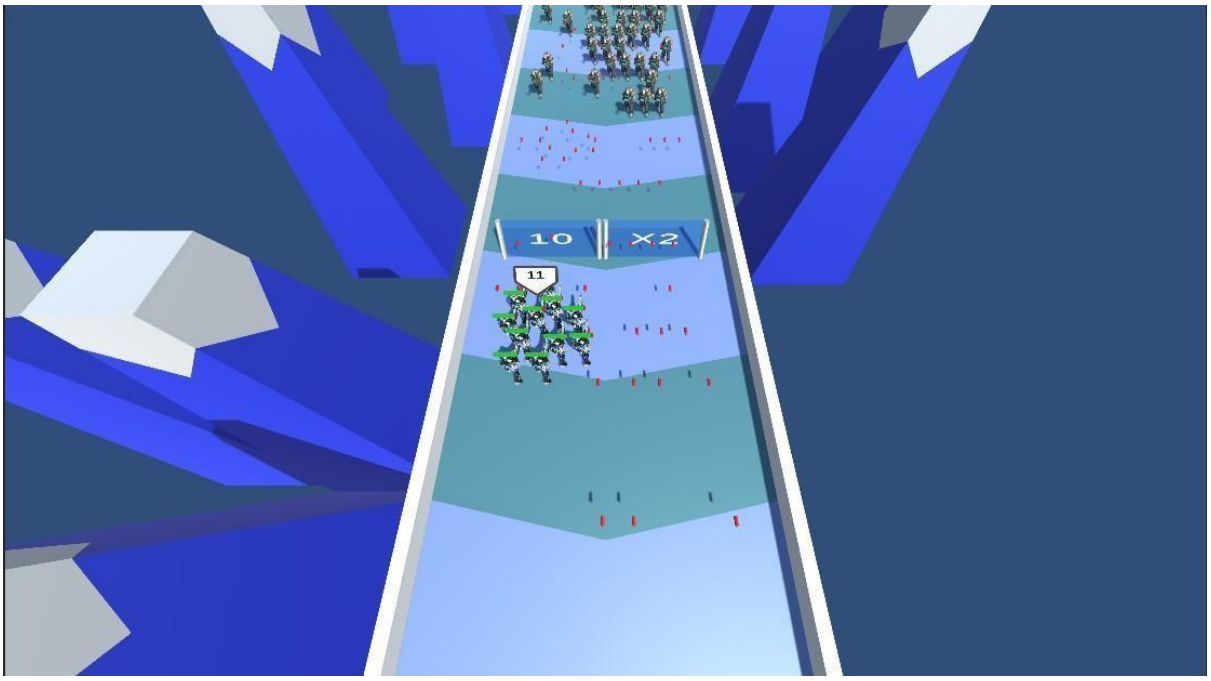


Fig 3. Result Of They Are In




## II. CONCLUSION:

The development and testing of They Are In have revealed both the strengths and areas for improvement in creating an immersive 3D survival action game using Unity. Through rigorous usability testing, we have gained invaluable insights into the game's mechanics, control sensitivity, difficulty balance, and overall player experience. The feedback highlighted the need for fine-tuning controls, rebalancing difficulty, simplifying the user interface, and optimizing performance across various hardware configurations. Addressing these issues is crucial to enhancing gameplay fluidity, ensuring a fair challenge, and providing an intuitive and accessible user experience.

Future development efforts will focus on implementing these improvements, fine- tuning control settings, and enhancing UI/UX elements to streamline player interaction. Additionally, performance optimization will ensure a seamless experience across all supported devices, reducing loading times and preventing frame rate drops. These enhancements are expected to significantly elevate the overall quality and enjoyment of the game.

On the business front, They Are In will adopt a freemium monetization model, offering both free-to-play and premium options to cater to a diverse player base. Expanding

the game’s availability across major platforms and exploring cross-platform play will maximize reach and engagement. Community engagement strategies, including active social media presence, regular updates, and events, will foster a vibrant player community and encourage long-term loyalty.

The marketing strategy will focus on building anticipation through pre-launch campaigns, leveraging gaming influencers, and securing media coverage. A coordinated global launch with promotional events will ensure a strong market entry, while post-launch support with regular content updates will maintain player interest and satisfaction. Data- driven marketing efforts will further refine our approach, ensuring targeted and effective campaigns.

In conclusion, They Are In is poised to make a significant impact in the gaming market by combining engaging gameplay with strategic business and marketing initiatives. By continuously refining the game based on player feedback and leveraging robust marketing strategies, we aim to deliver a compelling and memorable gaming experience. The commitment to ongoing development and community engagement will be key to sustaining the game's success and fostering a dedicated player base.

## III. REFERENCES:

For the bibliography or references section of your game development report on "They Are In," you should include a variety of sources that informed your project. These can range from academic papers, books, articles, online tutorials, and documentation. Here's how you might format this section:

**References**

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2. Adams, E., & Rollings, A. (2007). Fundamentals of Game Design. Prentice Hall.
3. Millington, I. (2006). Artificial Intelligence for Games. CRC Press.
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