**COMP 3770 Project - Group 13**

**Ultimate CTF (working title)**

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*November 10, 2021*

**Overview**

**Ultimate CTF** (working title) is a tactical capture-the-flag game where two teams battle it out on a large, strategic map in order to secure objectives from the enemy’s control. There is player combat in the form of weapons and traps, as well as other effects that can be used to control certain areas and create opportunities to reach the objective.

Players can choose from several distinct characters, each with their own set of abilities and traits. Characters are designed to be easy to try out but provide lots of depth for mastery. With multiple options for weapon upgrades and a powerful super ability, players are able to forge their own unique playstyle within the character of their choosing. Around the map players will be able to collect currency to purchase upgrades as well as energy orbs to charge their super ability faster.

By offering a variety of both combat- and strategy-oriented options, players will be able to play either offensively or defensively in a way that suits them, while also being able to experiment with new ideas via the upgrades and customizable supers.

**Concept and Inspiration**

The game’s basic concept follows a similar vein to competitive shooters like Valorant, Overwatch, and Team Fortress 2. Players of these games will be used to tactics and planning, as well as dynamic, fast-paced combat. This style of gameplay serves as our primary inspiration. The ability progression is also based on MOBAs like League of Legends and Pokémon UNITE, where the order in which players upgrade their abilities can create vastly different playstyles and strategies.

The game takes place on a single map with many angles of approach to the enemy’s base. Objectives are laid out in both neutral and far positions, meaning that players can fight for control of the middle or create an opening and seize the ones in the enemy’s base.

**Features**

**Playable characters**

Players will be able to select from a variety of characters at the beginning of each game. Some characters are more offense-oriented, some focus on stealth or holding control points, and some are all-rounders with some tricks up their sleeve. They establish these roles with their abilities, weapons, and traits such as health or movement speed. However, each character is designed with multiple potential playstyles in mind within their niche, thanks to the flexibility of the customizable super abilities and the weapon/ability upgrades.

**Super abilities**

A **super ability** is a strong and impactful ability that a player must charge over time or by collecting energy orbs throughout the map. Each character has 2 or 3 super abilities to pick from when they are selected by the player. They are designed to enable big plays if used correctly and require good decision-making; using a super ability will place it on a long cooldown period, where enemies may be able to strike back. Since these abilities are so powerful, they can greatly change how the character can be played and allow for multiple playstyles.

Examples of super abilities can include:

* A large area-of-effect (AoE) attacks, perfect for attacking multiple enemies in a messy teamfight and controlling lots of space.
* A high-damage attack that can be used to assassinate key members of the opponent’s team and weaken their strategy.
* A long stun effect that can temporarily cripple opponents, allowing for surprise attacks or to disable a team’s front line of defense.
* A defense-boosting buff for much greater durability in drawn-out fights.
* And many more!

**Item pickups**

There are various different types of consumable items distributed throughout the map for players to pick up. The same items appear for both teams, making them a form of “mini-objectives” that offer distinct advantages. Most items will respawn in the same locations after a short time, creating strategic vantage points that a team may wish to hold control of.

These items include:

* Health pickups that heal the player who picks them up, reducing their need to frequently return to base and heal or allowing them to quickly re-engage in combat after being weakened.
* Bundles of currency that can be spent on upgrades. Players may obtain currency from other sources (passive income, securing objectives, getting kills), but holding control around currency spawn points can allow a team to upgrade their abilities and weapons faster than the enemy can.
* Special single-use grenades that can be held until the player decides to use them. They can have various offensive effects such as dealing damage, creating a smokescreen, stunning enemies, or limiting the opponent’s mobility.

Because they are single-use and are lost when the player dies, they must be used carefully, but in the right situation they can allow for big team plays.

* Traps that can be placed down throughout the map and inflict various effects, both positive and negative, on any player who walks over them. Like the grenades, they are consumed from the player’s inventory on death or when set down. Spike traps that deal damage instantly, healing tiles that restore health over time, fire traps that deal damage over time, ice traps that allow players to slide quickly across them, and bear traps that immobilize a player for a short time; these are all examples of some of the powerful effects traps can have when used strategically.

Because traps affect players of both teams, players will need to think carefully about where they place them. These items are designed to appeal more to players who wish to avoid combat and prefer the tactical side of things.

* Shield pickups that act as a one-time health buffer. Players gain a second temporary health bar that will absorb damage until fully consumed. This shield cannot be healed like their character’s health can but can be refreshed by picking up another shield item. Characters that want to tank damage on the front lines will benefit from picking these up, or they can give an edge to duelist characters that prefer to fight 1-on-1.

**Weapon types**

Characters have a variety of weapon types available to them, each with their own list of pros and cons; this way, players are free to experiment, though some typed will inherently suit some characters more than others.

Examples of weapons in the game include:

* Hand-cannons are good all-around weapons with moderate damage, range, and rate of fire. Upgrades allow players to invest heavily into one specific aspect, and they are a decent introductory weapon on every character.
* Shotguns are relatively short-range but have high damage, making them good in short bursts. Usually the weapon of choice for very mobile characters that can dance in and out of their effective range quickly.
* Sniper rifles are very long range but take time to aim and reload. However, they hit extremely hard, and one good shot can singlehandedly remove a particularly threatening enemy from the equation.
* Rocket launchers launch slow but powerful shots that can damage multiple enemies at once. Characters that wish to keep enemies zoned off of certain areas, such as front-line tanks, can make use of this weapon.
* Machine guns are heavy and slow until they get going; once engaged, they let out a stream of bullets that can wear down the enemy’s defense, allowing the rest of the team to go in. They excel in hectic team-fight scenarios, able to spread lots of damage quickly, but are weaker in general 1-on-1 combat.

**Game Mechanics**

**Objectives**

The goal of the game is to retrieve objectives and bring them back safely to one’s base, thereby “capturing” them. If a player is killed on their way back with the objective, it drops on the ground, able to be picked up by other players to complete the delivery or to return it to its spawn location. A team earns points with each objective they successfully deliver within the time limit (tentatively 10 minutes per game). Objectives may take a while before they respawn again, incentivizing players to attempt to capture multiple objectives throughout the map instead of capturing the same one over and over.

There are neutral objectives that spawn in the middle of the map, able to be picked up and delivered by members of either team. As these tend to be easier to access, players may choose to heavily contest them in order to score more consistent points or prevent the enemy from doing so.

There are also higher-value objectives that spawn in the enemy’s base; a team cannot pick up the objectives that spawn in their own base. These objectives, in addition to the base point value, grant additional points based on the score of the team whose base they spawn in, making them exceptionally valuable in comeback situations. Naturally, they are more easily defended, as they are right next to the enemy’s respawn point; capturing these will require stealthy plays or to incapacitate most of the enemy team in combat.

**Combat**

Player-vs.-player combat is done using their respective characters’ abilities and weapons. All weapons have both melee and long-range applications, while abilities are character-specific, more situational, and have short cooldown periods, making them important tools in a fight. Characters have a certain amount of health that they lose by taking damage in combat; when it hits 0, the player is “dead” and must wait a short time before respawning in their base.

Players can take advantage of the opponent’s respawn time to secure objectives while the enemy team is weakened. If a player survives combat, there are some abilities and item pickups that can restore health. Returning to their base also restores a player’s health over time, making it important for players not to overextend but rather return to base safely to heal themselves faster than it would take to respawn.

**Upgrades**

Each team has an upgrade station in their base where they can redeem the currency they acquire to increase the effectiveness of their weapons and abilities: dealing more damage, having a lower cooldown, increasing defense, having stronger immobilizing effects, etc. Players can select and prioritize upgrades that suit their desired playstyle. For example, a player who wants to play a more supportive role can focus on building their own movement speed and stunning opponents, while players who wish to quickly dispose of enemies can invest all of their income into their damage output. While each character has a defined set of weapons and abilities, making use of upgrades and customizable super abilities, players can carve their own niche that fits what they enjoy doing the most or what harmonizes with the rest of their team.

**Potential strategies**

These proposed mechanics are intended to give a strong sense of customization and expression to each player. Often in games with multiple playable characters, one particular character may enforce a specific playstyle, making players feel as though they are being told how to play instead of being able to experiment and make their own decisions. Our game intends to minimize this by giving each character the tools to perform many different roles, even if they may excel or fall short in some. Players can accentuate their characters’ strengths or supplement their weaknesses using the weapons and upgrade system, as well as being able to greatly impact the game using a super ability of their choice. The item pickups also grant utility that is universal across all characters and builds.