1. **Playing the game**
   1. **Brief Description**

This use case allows any user to play the game after he/she has registered and log into the game. The player can choose a level to start on the Start menu. The player can also change the game setting such as volume by player’s preference. The game can also show the player how long they have managed to fight against the enemy by showing the information on a leaderboard. The game can be closed by clicking Quit button.

* 1. **Flow of Events**
     1. **Basic Flow**

This use case starts when a user registers for the game account and log into the game, or the user already has an account and log into the game.

1. The system requests that the user specify which function they want to perform (Select level, Game settings, View Leaderboard, or Quit).
2. Once the user provides the requested information, one of the subflows is executed.

If the user selected “Select level”, the select level subflow is executed.

If “Game Setting” is selected, Game Setting subflow is executed.

If “View Leaderboard” is selected, Leaderboard subflow is executed.

* + - 1. **Select Level**

1. The system will show user a list of levels (In this case only one level will be provided).
2. The user can choose the level he/she wants to play.
3. After user choose a level to start, the Start Level subflow is executed.
   * + - 1. **Start Level**
4. The game map is loaded to player’s screen.
5. If pause button is clicked, Pause Level subflow is executed. Game will be resumed after Resume button is clicked.
6. If player collects money, Collect Money subflow is executed.
7. If player buys weapon, Buy weapon subflow is executed.
   * + - 1. **Buy weapon**
8. The system will show weapons on the screen for players to buy.
9. After player choose a weapon, Place weapon subflow is executed.
10. Enemy occurs in a weapon’s range Kill Zombies subflow is executed.
11. Enemy is killed then Zombie subflow is executed.
    * + 1. **Game Setting**
12. The system will show the user a list of settings that user can modify.
13. The user can modify the settings according to the list.
14. After the user has modified the game setting, the new setting will be applied to the game.
    * + 1. **View Leaderboard**
15. The system will get the data of users from the database in the back end.
16. The system will post the ranking by descending order of the user’s time.
    * + 1. **Quit**
17. The system will show a message box to let user make sure if he/she really wants to close the game.
18. The game will be closed.
    * 1. **Alternative Flows**
         1. **No data for leaderboard is found**

As the leaderboard requires user’s time record for the system to post. If there is no data on the database yet, the system will show a empty message on the board. If the system is failed to get data from the database, an error message will be shown on the board.

* + - 1. **Quit cancelled**

If in the Quit subflow the user decides not the quit the game, he/she can click Cancel button on the message box to cancel this action and the game will not be closed and remain open.

* + - 1. **Buy weapon cancelled**

In the Buy weapon subflow player can click the weapon card again to cancel the action.

* 1. **Special Requirements**

None.

* 1. **Pre-Conditions**

The user must be logged into the game before the use case begins.

* 1. **Post-Conditions**

The game setting will only be changed after user clicks Apply button.

The user’s money will be reduced according to the cost of the weapon/weapon after purchase.

If the purchase if successful, the user can place the new weapon on the game map.

* 1. **Extension Points**

None.

1. **Description of Use-case**

* Player: The user
* Select Level: The user can select the level they want to play
* Start Level : The user starts the level / the game
* Pause Level: The user can pause or resume midgame
* Game Setting : The user can manage the game volume / other settings for the game
* View Leaderboard : The user can view the leaderboard to see other player’s ranking
* Place weapon : The user can place the weapon they have bought on the map
* Collect Money: The user can collect money
* Buy weapon : The user can buy the weapon they want to use for the defense.