In all the use cases, there is only one (primary) actor, the player. When the game loads, the first user interface is the main menu.

1. **Use Case:** StartNewGame

   Primary Actor: Player.

   Goal in context: To start the game, beginning at the entrance block.

   Preconditions: None

   Trigger: Pressing the 'Start New Game' option on the main menu.

   Scenario:

   1. Player: at the main menu screen.
   2. Player: selects the 'Start New Game' option.
   3. Player: starts playing

   Exception(s): None

   Open issues: None

2. **Use Case:** SaveHighScore

   Primary Actor: Player.

   Goal in context: To save the new score in the leaderboard.

   Preconditions:

   1. The player should win the game.
   2. The score in the last play should be higher than the scores already present in the leaderboard, if it is full.

   Trigger: Winning a play and securing a high enough score.

   Scenario:

   1. Player: wins with a score high enough.
   2. A new interface loads with the option of entering the player's name.
   3. Player: enters their name.
   4. The leaderboard opens with the new high score included.

   Exception(s): None

   Open issues:

   1. How many slots should the leaderboard have?
   2. What is the minimum and maximum number of characters for the name?

3. **Use Case:** LearnGamePlay

Primary Actor: Player.

Goal in context: To learn the working and end goal of the game.

Preconditions: Having an internet connection.

Trigger: Pressing the 'Learn How to Play' option on the main menu.

Scenario:

1. Player: at the main menu screen.
2. Player: selects the 'Learn How to Play' option.
3. A new window pops up with a YouTube instructional video.

Exception: The system does not have an active internet connection: player troubleshoots/connects to internet.

Open issues: None

4. **Use Case:** ChangeSettings

Primary Actor: Player.

Goal in context: To change the skins of the characters, change map and alter the game's difficulty.

Preconditions: None

Trigger: Pressing the 'Change Settings' option on the main menu.

Scenario:

1. Player: at the main menu screen.
2. Player: selects the 'Change Settings' option.
3. A new interface loads with options to alter the following: playable characters, type of enemy, map, and difficulty of the game (by changing speed of characters, number of enemies, etc.)
4. Player: makes any desired changes.

Exception(s): None

Open issues:

1. Which options should be made available to the player to change and which should be set constant?
2. What will be the maximum and minimum number of enemies allowed, speed, etc.?
3. Should the respective maximum and minimum numbers change with different maps?
4. Should the maps be randomly generated or predesigned?

5. **Use Case:** ViewLeaderboard

   Primary Actor: Player.

   Goal in context: To view the leaderboard.

   Preconditions: None

   Trigger: Pressing the ‘Leaderboard’ option on the main menu.

   Scenario:

   1. Player: at the main menu screen.
   2. Player: selects the ‘Leaderboard’ option.
   3. The leaderboard interface opens with all the saved high scores (or without any if none are saved at the time).

   Exception(s): None

   Open issues: None

6. **Use Case:** ExitGame

   Primary Actor: Player.

   Goal in context: To close the game.

   Preconditions: None

   Trigger: Pressing the ‘Exit Game’ option on the main menu.

   Scenario:

   1. Player: at the main menu screen.
   2. Player: selects the ‘Exit Game’ option.
   3. The game shuts down.

   Exception(s): None

   Open issues: None

UML Use Case Diagram for the game: