Use Case Name: Cross road terrain

Brief Description:

Player wishes to cross road terrain in the crossy roads game

Actors: Player

Basic Flow:

1. Player starts the game

- 2. Player uses 'Up Arrow' to navigate up in the terrain
- 3. Player uses 'Down Arrow' to navigate down in the terrain
- 4. Player uses 'Left Arrow' to navigate left in the terrain
- 5. Player uses 'Right Arrow' to navigate right in the terrain
- 6. Player avoids hitting a car while crossing the road

Alternate Flow:

- 1. Player gets hit by the car and loses a life
- 2. Player loses all lives and game ends

Preconditions: Player has at least one life to play the game and has reached road terrain

Success Guarantee: Player is able to cross the terrain and move to the next terrain

Minimal Guarantee: Player is able to navigate in the terrain itself without able to move to the next terrain

Use Case Name: Cross rails terrain

Brief Description:

Player wishes to cross rail terrain in the crossy roads game

Actors: Player

Basic Flow:

1. Player starts the game

- 2. Player uses 'Up Arrow' to navigate up in the terrain
- 3. Player uses 'Down Arrow' to navigate down in the terrain
- 4. Player uses 'Left Arrow' to navigate left in the terrain
- 5. Player uses 'Right Arrow' to navigate right in the terrain
- 6. Player avoids hitting a train while crossing railway tracks

Alternate Flow:

- 1. Player gets hit by a train and loses a life
- 2. Player loses all lives and game ends

Preconditions: Player has at least one life to play the game and has reached rails terrain

Success Guarantee: Player is able to cross the terrain and move to the next terrain

Minimal Guarantee: Player is able to navigate in the terrain itself without able to move to the next terrain

Use Case Name: Cross River

Brief Description:

Player wishes to cross the river in the crossy roads game

Actors: Player

Basic Flow:

1. Player reaches the river

- 2. Player uses 'Up Arrow' to get on the log
- 3. Player uses 'Down Arrow' to get to the log below
- 4. Player uses 'Left Arrow' to get to the log on the left
- 5. Player uses 'Right Arrow' to get to the log on the right
- 6. Player avoids falling into the river

Alternate Flow:

- 1. Player falls into the river and loses a life
- 2. Player loses all lives and game ends

Preconditions: Player has at least one life to play the game and has reached the river terrain

Success Guarantee: Player is able to cross the river and move to the next terrain

Minimal Guarantee: Player is able to navigate in the terrain itself without able to move to next terrain

Use Case Name: Cross Land

Brief Description:

Player wishes to cross the land terrain in the crossy roads game

Actors: Player

Basic Flow:

1. Player reaches the land terrain

- 2. Player uses 'Up Arrow' to navigate up in the terrain
- 3. Player uses 'Down Arrow' to navigate down in the terrain
- 4. Player uses 'Left Arrow' to navigate left in the terrain
- 5. Player uses 'Right Arrow' to navigate right in the terrain
- 6. Player avoids trees and rocks

Alternate Flow:

1. Player is blocked by a tree or rock if appropriate navigations keys are not used to avoid the tree

Preconditions: Player has at least one life to play the game and has reached the land terrain

Success Guarantee: Player is able to cross the land and move to the next terrain

Minimal Guarantee: Player is able to navigate in the terrain itself without able to move to next terrain

Use Case Name: Navigation in the game

Brief Description:

Player wishes to navigate in the crossy roads game

Actors: Player

Basic Flow:

- 1. Player uses 'Up Arrow' to navigate up in the terrain
- 2. Player uses 'Down Arrow' to navigate down in the terrain
- 3. Player uses 'Left Arrow' to navigate left in the terrain
- 4. Player uses 'Right Arrow' to navigate right in the terrain

Alternate Flow:

1. Player chooses not to navigate in the game and remains in one location

Preconditions: Player has at least one life to play the game

Success Guarantee: Player is able to use the various arrow keys to navigate in the game

Use Case Name: Collect coins

Brief Description:

Player collects coins in the crossy roads game

Actors: Player

Basic Flow:

- 1. Player starts the game
- 2. Player collects coins
- 3. For every 3 coins collected, a player gets one extra life

Alternate Flow:

1. Player chooses not to collect coins

Preconditions: Player has at least one life to play the game and coins are remaining in the level to collect

Success Guarantee: Player is able to collect all the coins in the level

Minimal Guarantee: Player is able to collect some of the coins in the level

Use Case Name: Lose life

Brief Description:

Player could be hit by obstacles in the crossy roads game and lose life

Actors: Player

Basic Flow:

1. Player starts the game

- 2. Player navigates through the terrains in the game
- 3. Player gets hit by a car/ train or falls into the river
- 4. Player loses a life

Alternate Flow:

1. Player does not get hit by an obstacle or does not fall into the river

Preconditions: Player has at least one life to play the game

Success Guarantee: Player loses a life by hitting an obstacle

Use Case Name: Cross finish line

Brief Description:

When player reaches the finish line, game moves on to next level

Actors: Player

Basic Flow:

1. Player starts the game

- 2. Player navigates through the terrains in the game
- 3. Player reaches the finish line of the current level
- 4. Player moves on to next level

Alternate Flow:

1. Player loses all lives in the current level and does not reach the finish line

Preconditions: Player has at least one life to play the game and player has more levels left for completion in the game

Success Guarantee: Player reaches the finish line and moves on to next level

Use Case Name: Track progress

Brief Description:

Player checks the current progress in the game by tracking lives counter, coins collected and current level

Actors: Player

Basic Flow:

- 1. Player starts the game
- 2. Player navigates through the terrains in the game
- 3. Player collects coins
- 4. Player loses life by being hit by a car/train or falling into the river
- 5. Player checks progress by tracking lives counter, coins collected and current level

Alternate Flow: NA

Preconditions: Player has at least one life to play the game

Success Guarantee: Player always can track the current progress in the game

Use Case Name: Check Scoreboard

Brief Description:

Player has access to the scoreboard at the end of the game

Actors: Player

Basic Flow:

- 1. Player starts the game
- 2. Player navigates through the terrains in the game
- 3. Player completes all the levels in the game
- 4. Player can check the scoreboard at the end of the game

Alternate Flow:

- 1. Player starts the game
- 2. Player navigates through the terrains in the game
- 3. Player loses all lives in the current level and the game ends
- 4. Player can check the scoreboard at the end of the game

Preconditions: Player has initiated the game

Success Guarantee: Player always has access to the scoreboard at the end of the game