

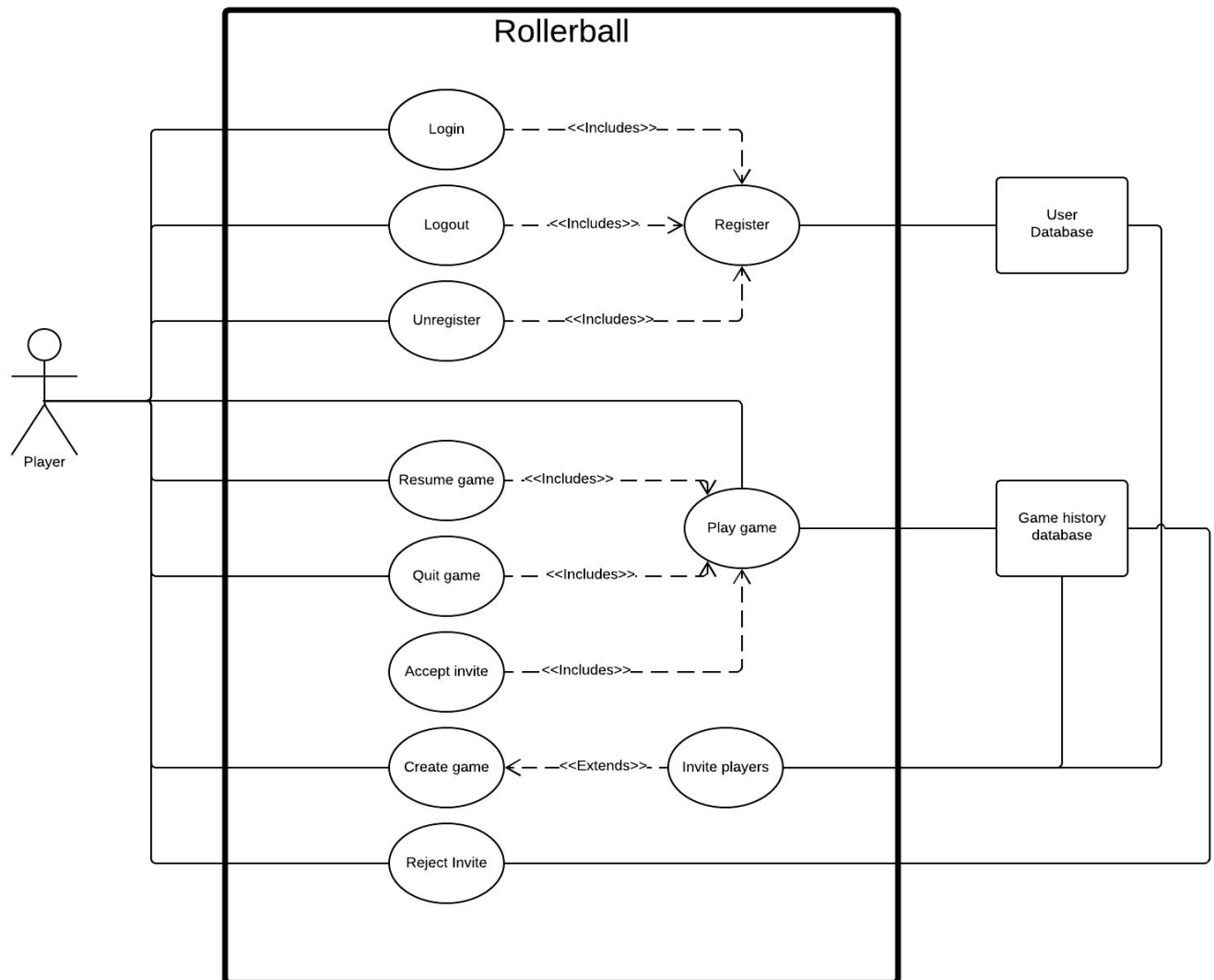
Rollerball Use Case Document

The Soggy Zebras: Angela Root, Jonathan Cowles, Jordan Peterson, Courtney Torres, Dawson
Canby

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Use case diagram



Logging in

Use case id:	1
Use case name:	Login
Brief description:	The player logs into the system.
Type:	User Goal
Primary actors:	Player
Secondary actors:	User database
Pre-conditions:	1. Player must be registered
Main flow:	<ol style="list-style-type: none">1. Player enters username and password.2. System verifies credentials<ol style="list-style-type: none">2a. System checks if player is in the user database<ol style="list-style-type: none">2a1. Extension point Register2b. Player enters incorrect username or password<ol style="list-style-type: none">2b1. System notifies user of invalid credentials2b2. Return to 1
Alternate flow:	None
Post-conditions:	1. The player is logged in

Logging out

Use case id:	2
Use case name:	Logout
Brief description:	The player logs out of the system
Type:	User Goal
Primary actors:	Player
Secondary actors:	User database
Pre-conditions:	1. The player is registered in the system 2.The player must be logged in
Main flow:	1. The player chooses to logout.
Alternate flow:	none
Post-conditions:	1. The player has been logged out of the system

Unregistering

Use case id:	3
Use case name:	Unregister
Brief description:	The player removes registration from user database
Type:	User Goal
Primary actors:	Player
Secondary actors:	User database
Pre-conditions:	1. Player is currently registered in the user database 2. Player is currently logged in to the system
Main flow:	1. Player chooses to unregister account 2. User database is updated removes player entry
Alternate flow:	1.a. Player declines to unregister during the process b. User database is not updated to remove player entry c. Unregister process is cancelled
Post-conditions:	1. Player is unregistered and account details are no longer in the user database.

Registering

Use case id:	4
Use case name:	Register
Brief description:	The player creates an account with a unique username, email, and password.
Type:	User Goal
Primary actors:	Player
Secondary actors:	User database
Pre-conditions:	<ol style="list-style-type: none">1. Username must be unique.2. Email must be unique.3. Password must fulfill requirements TBD at a later time.
Main flow:	<ol style="list-style-type: none">1. Player provides email, username, and password.2. System checks for unique username and email.3. System updates user database.4. Player is registered
Alternate flow:	<ol style="list-style-type: none">2.a. Username/Email is not unique.b. Restart registration process
Post-conditions:	<ol style="list-style-type: none">1. Player is registered2. Player's login information is stored in the user database.

Resuming a game

Use case id:	5
Use case name:	Resume game
Brief description:	The player may resume a game that has already been started.
Type:	User Goal
Primary actors:	Player
Secondary actors:	Game History Database
Pre-conditions:	1. A game must already be started 2. A player must be logged in
Main flow:	1. The player resumes the game 2. The game history database updates the state of the game
Alternate flow:	1. The game does not exist
Post-conditions:	1. The game will be resumed

Quitting a game

Use case id:	6
Use case name:	Quit game
Brief description:	Quit the game that the player is currently in.
Type:	User Goal
Primary actors:	Player
Secondary actors:	Game history database
Pre-conditions:	1. The player is in a game
Main flow:	1. The player quits the game 2. The game history database is updated to show that the player left 3. The other player is notified that the player quit
Alternate flow:	1. The player does not to quit the game
Post-conditions:	1. The player can no longer play the game 2. The game history database shows that the player quit 3. The other player has been notified that the player quit

Accepting a game invite

Use case id:	7
Use case name:	Accept Invite
Brief description:	A player will be able to accept an invite sent from another player
Type:	User Goal
Primary actors:	Player
Secondary actors:	None
Pre-conditions:	1. The player must be logged in 2. The invite must not be accepted by anyone else
Main flow:	1. System validates the invite 2. The player accepts invite 3. System cancels all other game invites
Alternate flow:	1. Invite is not valid a. The game is not accepted b. The game is not started 2. The player does not accept the invite a. Reject Invite.
Post-conditions:	1. The game was accepted 2. The game is started

Playing the game

Use case id:	8
Use case name:	Play game
Brief description:	Two players take turns taking actions. The game ends when a win condition is met for one of the players
Type:	User Goal
Primary actors:	Player
Secondary actors:	User database, Game history database
Pre-conditions:	1. Player is logged in 2. Both players have joined a game against each other
Main flow:	1. System checks if it is the player's turn a. The system notifies the player that it can move 2. Player takes a move 3. System checks impact of the move a. Win condition is not met, next players turn, repeat step 1 and 2 b. Win condition is met 4. Game ends
Alternate flow:	1. Player does not make a move a. The system waits for the player to move 2. During player's move, player leaves the game a. The game is over 3. During player's move, other player leaves the game a. The game is over

	4. Move is invalid a. Player is notified of invalid move
Post-conditions:	The game is over and the game history database records the results

Creating a new game

Use case id:	9
Use case name:	Create game
Brief description:	Create a new rollerball game that the player can invite others to.
Type:	User Goal
Primary actors:	Player
Secondary actors:	None
Pre-conditions:	1. Player must be registered.
Main flow:	1. Player chooses to create game. 2. Extension point Invite players
Alternate flow:	1. Player cancels creation of game. a. Created game is erased.
Post-conditions:	1. A new game is created that invited players can join.

Inviting players to a new game

Use case id:	10
Extension use case:	Invite players
Brief description:	When a match is created, player may invite other players to join.
Type:	User Goal
Primary actors:	Player
Secondary actors:	User database
Pre-conditions:	1. Player has created a new game. 2. Player is logged in. 3. Invited player(s) exists.
Main flow:	1. Player selects one or more players to invite to play. 2. Invite is sent to other players immediately.
Alternate flow:	1. Player cancels create game. a. Created game is erased.
Post-conditions:	1. A new game has been created with invites sent to other players.

Rejecting a game invite

Use case id:	11
Use case name:	Reject Invite
Brief description:	Player rejects the invite from another user to play the game
Type:	User Goal
Primary actors:	Player
Secondary actors:	None
Pre-conditions:	1. Player must have been invited.
Main flow:	1. Player gets new game invite notification. 2. Player rejects the invite. 3. Player that sent the invite is notified of rejection.
Alternate flow:	2.a. Player ignores the game invite. 2.b. Player accepts game invite. 1. Accept Invite.
Post-conditions:	1. Invitation has been rejected

Playing with an AI

Use case id:	12
Use case name:	Playing with an AI
Brief description:	Player play a game with an AI instead of another Player
Type:	User Goal
Primary actors:	Player
Secondary actors:	None
Pre-conditions:	1. Player is logged in 2. Player has selected to play with AI
Main flow:	1. Player starts game with AI
Alternate flow:	1. Player wants to play game with other player
Post-conditions:	1. Player is able to play with AI

