



# Chad

## Team WareWolves

A Simple and Elegant game of  
Tactical and Strategic depth

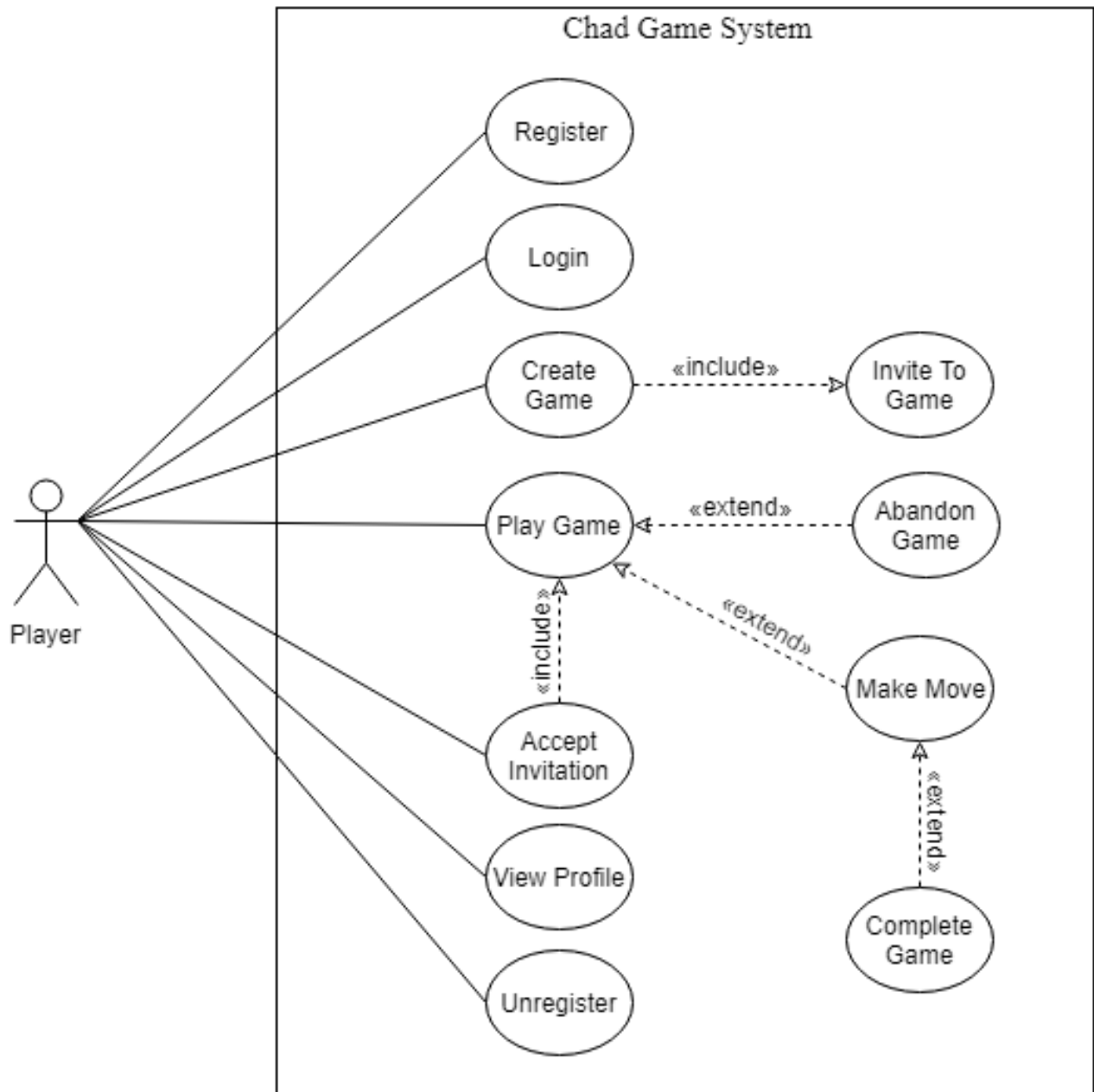


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# Use Case Diagram



# Use Cases

## Register

Use Case ID	P-01
Use case name	Register
Overview	The player can create an account in the system using an email, username, and password
Primary actors	Player
Secondary actors	None
Pre-conditions	The Player's email and/or username are not already in the system.
Main flow	<ol style="list-style-type: none"><li>1. The player enters a username, email, and password</li><li>2. System verifies user email exists</li><li>3. System checks that email not already in use.</li><li>4. System checks if the username is not already in use</li><li>5. System makes new User record</li><li>6. System sends confirmation email</li><li>7. Player is logged in.</li></ol>
Post-conditions	The Player has an account in the system and is logged in.
Alternative flow 1	<ol style="list-style-type: none"><li>2. If email does not exists.</li><li>3. System error message displayed.</li><li>4. Restart account creation.</li></ol>
Alternative flow 2	<ol style="list-style-type: none"><li>3. If email already in use by another user.</li><li>4. System error message displayed</li><li>5. Restart account creation</li></ol>

Alternative flow 3	4. If the username is already used by another user 5. System error message displayed 6. Restart account creation
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## Login

Use Case ID	P-02
Use case name	Login
Overview	The player can log into their account using their email/username and password.
Primary actors	Player
Secondary actors	None
Pre-conditions	The player has an account
Main flow	1. Player enters their email and password 2. System checks if email and password are valid 3. Player is logged into the system
Post-conditions	Player is logged in to the system.
Alternative flow 1	2. The password does not match the email provided 3. Reject login attempt 4. Prompt Player to re-enter their email and password.
Alternative flow 2	2. The email address is not registered in the system. 3. Reject login attempt. 4. Prompt Player to re-enter their email and password.

## Create Game

Use Case ID	P-03
Use case name	Create Game
Overview	The player creates a game
Primary actors	Player
Secondary actors	None
Pre-conditions	Player is logged into the system
Main flow	1. The player creates a new game. 2. Include(Invite to game (P-04))
Post-conditions	A game has been created with the Player as player 1
Alternative flows	

## Invite to Game

Use Case ID	P-04
Use case name	Invite to Game
Overview	The player can invite other users to a match
Primary actors	Player
Secondary actors	None
Pre-conditions	<ul style="list-style-type: none"><li>- Player is logged into the system</li><li>- Player has created a game</li><li>- Other users exist</li></ul>
Main flow	<ol style="list-style-type: none"><li>1. The player enters other Players' username to invite.</li><li>2. The system sends an invitation to the other player</li></ol>
Post-conditions	Other Players have been invited to the game
Alternative flows	<ol style="list-style-type: none"><li>1. The entered username is not a inuse Username in the system.</li><li>2. Prompt the user to enter another player's username</li></ol>

## Accept Invitation

Use Case ID	P-06
Use case name	Accept Invitation
Overview	A player who has been invited to a game can accept the invitation and join the game.
Primary actors	Player
Secondary actors	None
Pre-conditions	<ul style="list-style-type: none"> <li>- Player is logged into the system</li> <li>- Player has been invited to a game</li> <li>- Invite has not been canceled</li> </ul>
Main flow	<ol style="list-style-type: none"> <li>1. Player accepts the invitation</li> <li>2. Game is added to the players active games</li> <li>3. System adds both Players to the game and sets up the board.</li> <li>4. The System informs the starting Player that it is their turn.</li> <li>5. Include (Play Game(P-05))</li> </ol>
Post-conditions	Player has successfully joined the game.
Alternative flows	<ol style="list-style-type: none"> <li>1. Player rejects the invitation</li> </ol>



## Play Game

Use Case ID	P-05
Use case name	Play Game
Overview	Two players actively make moves and play the game Chad.
Primary actors	Player
Secondary actors	Another Player
Pre-conditions	<ul style="list-style-type: none"> <li>- Player is logged into the system.</li> <li>- Player is part of an active game.</li> </ul>
Main flow	<ol style="list-style-type: none"> <li>1. Player selects an active game.</li> <li>2. Player is shown the current state of the game</li> <li>3. System indicates that it is Player's turn</li> </ol> Extension Point (Make Move(P-07))
Post-conditions	Game state has been recorded
Alternative flows	<ol style="list-style-type: none"> <li>3. Player chooses to abandon the game.</li> </ol> Extension Point (Abandon Game(P-09))

## Make Move

Use Case ID	P-07
Extension use case	Make Move
Overview	The player can make moves in an active game.
Primary actors	Player
Secondary actors	System
Pre-conditions	<ul style="list-style-type: none"> <li>- Player is logged into the system</li> <li>- Player is part of an active game</li> <li>- It is the Player's turn in an active game</li> </ul>
Main flow	<ol style="list-style-type: none"> <li>1. Player selects one of their pieces.</li> <li>2. Player is shown a preview of valid moves for that piece</li> <li>3. Player selects a space of a valid move for the piece.</li> <li>4. Player submits the move</li> </ol> <p>Extension point (Complete Game(P-08))</p> <ol style="list-style-type: none"> <li>5. The system registers the move</li> <li>6. The system informs the other Player that it is their turn</li> </ol>
Post-conditions	The game has been updated with the Player's new move, and it is now the other Player's turn.
Alternative flow 1	<ol style="list-style-type: none"> <li>1. Player selects an opponent's piece</li> <li>2. The system shows no valid moves</li> <li>3. Go back to 1</li> </ol>
Alternative flow 2	<ol style="list-style-type: none"> <li>3. Player chooses an invalid move</li> <li>4. The system notifies Player it is an invalid move</li> <li>5. Go back to 2.</li> </ol>

## Complete Game

Use Case ID	P-08
Extension use case	Complete Game
Overview	The game is completed and the results of the game are recorded
Primary actors	Player
Secondary actors	None
Pre-conditions	<ul style="list-style-type: none"> <li>- Player is logged in</li> <li>- Player is playing a game</li> <li>- Player has a checkmate or there is a tie state</li> </ul>
Main flow	<ol style="list-style-type: none"> <li>1. The system ends the active game</li> <li>2. If a Player had a checkmate</li> <li>3. Record a win on the winning Player's profile.</li> <li>4. Record a loss on the losing Player's profile.</li> </ol>
Post-conditions	<ul style="list-style-type: none"> <li>- Game is no longer active</li> <li>- Game result is recorded</li> </ul>
Alternative flows	<ol style="list-style-type: none"> <li>2. The game ended at a draw</li> <li>3. Record a draw on both Players' profiles</li> </ol>

## Abandon Game

Use Case ID	P-09
Extension use case	Abandon game
Overview	A player can quit a game that is in progress
Primary actors	Player
Secondary actors	None
Pre-conditions	<ul style="list-style-type: none"><li>- Player is logged into the system</li><li>- Player is part of an active game</li></ul>
Main flow	<ol style="list-style-type: none"><li>1. Player selects the game they want to leave.</li><li>2. Player confirms their choice to abandon the game.</li><li>3. The game is marked as abandoned in the player's stats</li></ol>
Post-conditions	Player has left the game.
Alternative flows	<ol style="list-style-type: none"><li>2. Player cancels the abandon operation.</li><li>3. The game is not ended.</li></ol>

## Unregister

Use Case ID	P-10
Use case name	Unregister
Overview	The user can unregister from the system
Primary actors	Player
Secondary actors	None
Pre-conditions	Player is logged into the system
Main flow	<ol style="list-style-type: none"><li>1. Player selects unregister</li><li>2. Player confirms they want to unregister.</li><li>3. The system sends an email to the saved Player email address as a receipt of unregistration.</li><li>4. The player's email, password, username, and game records are removed from the system records.</li></ol>
Post-conditions	Player no longer has an account in the system.
Alternative flows	<ol style="list-style-type: none"><li>2. Player cancels the unregistration.</li><li>3. Player is returned to previous view.</li></ol>

## View Profile

Use Case ID	P-11
Use case name	View Profile
Overview	A user can view a user profile
Primary actors	Player
Secondary actors	None
Pre-conditions	Player is logged into the system
Main flow	<ol style="list-style-type: none"><li>1. Player searches for a username.</li><li>2. Player selects a username.</li><li>3. The player views information about the selected user and their previously played games.</li></ol>
Post-conditions	Player is viewing a users profile
Alternative flows	<ol style="list-style-type: none"><li>1. Player selects own profile</li><li>2. Player views statistics of their previously played games.</li></ol>