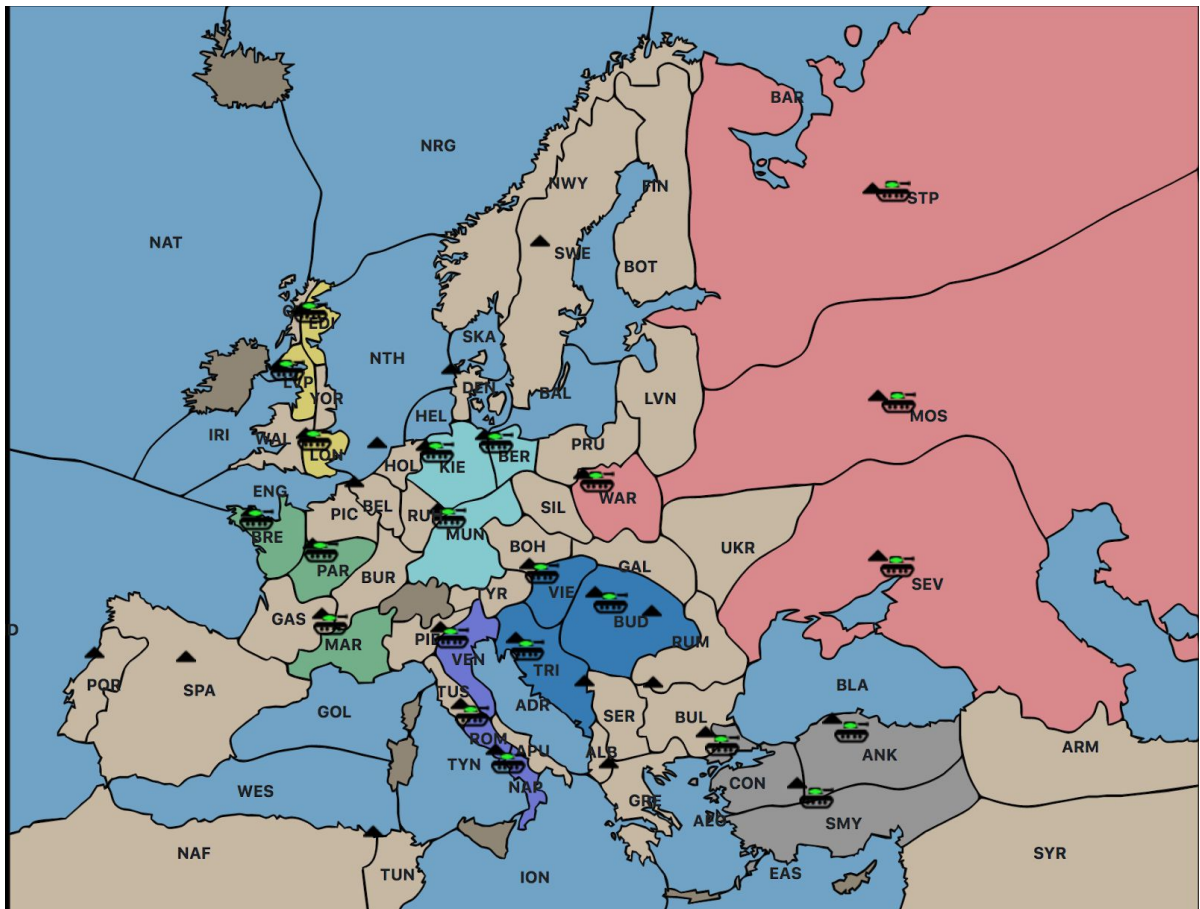


Diplomacy

Use Cases



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Revision History

Date	Version	Description	Author
2/28/2019	1.0	Initial draft.	All

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Use Case Identifier	UC-1
Use Case Name	Register
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none">• User must have the game installed
Flow of Control	<ol style="list-style-type: none">1) User accesses SYSTEM login page by starting the game2) SYSTEM displays login page3) User selects create account4) SYSTEM changes login page to register page5) User enters username and password and submits data6) SYSTEM sends information to BACKEND SYSTEM7) BACKEND SYSTEM verifies username is available and SYSTEM creates an account8) SYSTEM informs user an account has been created9) SYSTEM redirects user to the game lobby page
Post Condition	<ul style="list-style-type: none">• User account is created• User is logged in and sees the game lobby page• User is able to navigate the game lobby page and their

	profile
Alternate	8) Username already exists <ul style="list-style-type: none"> • BACKEND SYSTEM informs SYSTEM that the username is already exists • SYSTEM informs user that the username is in user • User repeats 5
Error Condition	<ul style="list-style-type: none"> • Username and password are left blank • The entered data in the field are in incorrect format: <ul style="list-style-type: none"> ○ Username is invalid ○ Password is invalid
Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM must complete validation within 1 seconds

Use Case Identifier	UC-2
Use Case Name	Login
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> • User must know his/her username and password
Flow of Control	<p>1) User accesses SYSTEM login page by starting the game</p> <p>2) SYSTEM displays login page</p> <p>3) User enters username and password and submits data</p> <p>4) SYSTEM sends the username and password to the BACKEND SYSTEM</p> <p>5) BACKEND SYSTEM verifies submitted data and authenticates user and sends information back to the user</p> <p>6) SYSTEM redirects user to the game lobby page</p>

Post Condition	<ul style="list-style-type: none"> • User is logged in and sees the game lobby page • User is able to navigate the game lobby page and their profile
Alternate	<p>3) User enters invalid username/password</p> <ul style="list-style-type: none"> • BACKEND SYSTEM informs SYSTEM the username/password is incorrect • SYSTEM informs user that he or she has entered an invalid username/password • User goes back to step 3
Error Condition	<ul style="list-style-type: none"> • Username and password are left blank • The entered data in the field are in incorrect format: <ul style="list-style-type: none"> ○ Username is invalid ○ Password is invalid
Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM must complete validation within 1 seconds • SYSTEM must redirect to the game lobby page upon successful login within 1 second • Display error message after 3 unsuccessful attempt and do not allow login for 15 minutes.

Use Case Identifier	UC-3
Use Case Name	Logout
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> • User must be logged into the game
Flow of Control	<p>1) User hits "Sign out" Icon in the game</p> <p>2) SYSTEM saves all relevant actions made by the user prior to logout, and sends it to the BACKEND SYSTEM</p> <p>3) BACKEND SYSTEM saves all information and sends a notification the the front</p> <p>4) SYSTEM informs user that</p>

	<p>he or she has been logged out</p> <p>5) SYSTEM redirects user to login page</p>
Post Condition	<ul style="list-style-type: none"> • All relevant data of the session is saved • User is signed out of the game
Alternate	<ul style="list-style-type: none"> • NA
Error Condition	<ul style="list-style-type: none"> • NA
Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM must complete validation within 1 seconds

Use Case Identifier	UC-4
Use Case Name	Start Game
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> • User must be on the game lobby page
Flow of Control	<p>1) User selects start new game</p> <p>2) SYSTEM directs user to new game page</p> <p>3) User invites other players by entering their username</p> <p>4) SYSTEM sends a request to BACKEND SYSTEM</p> <p>5) BACKEND SYSTEM validates and sends a response</p> <p>6) SYSTEM informs user that entered username is valid</p> <p>7) User selects game constraints</p>

	<p>8) SYSTEM adds game constraints</p> <p>9) User hits submit</p> <p>10) SYSTEM sends a request to update BACKEND SYSTEM</p> <p>11) The BACKEND SYSTEM sends requests to all other players and creates a game</p>
Post Condition	<ul style="list-style-type: none"> • Game invitations are sent to selected users. • A new game is created
Alternate	<p>3) Username does not exist or player player is unavailable</p> <ul style="list-style-type: none"> • BACKEND SYSTEM informs SYSTEM the invited user is unavailable • SYSTEM informs user about the invited player • User repeats steps 3
Error Condition	<ul style="list-style-type: none"> • User may enter an invalid username for other players
Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM must complete validation within 1 seconds

Use Case Identifier	UC-5
Use Case Name	Accept Game
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> • User must be on the game lobby page • The Game invite Icon must be "red"
Flow of Control	<p>1) User hits "Accept/Decline" game invitations on the game lobby page</p> <p>2) SYSTEM sends information to BACKEND SYSTEM</p>

	<p>3) SYSTEM enters user into the game by updating BACKEND SYSTEM</p> <p>4) SYSTEM redirects user to the gameplay page</p>
Post Condition	<ul style="list-style-type: none"> User is allowed to play a game that he or she was invited to
Alternate	<p>3) User declines game</p> <ul style="list-style-type: none"> BACKEND SYSTEM does not enter user to the game
Error Condition	<ul style="list-style-type: none"> NA
Non-Functional Requirement	<ul style="list-style-type: none"> SYSTEM must complete validation within 1 seconds

Use Case Identifier	UC-6
Use Case Name	Resume Game
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> User must have accepted a game User must be in the game lobby page
Flow of Control	<p>1) User hits "Resume Game" icon on the game lobby page</p> <p>2) SYSTEM requests game information from the BACKEND SYSTEM</p> <p>3) BACKEND SYSTEM sends game information to the front</p> <p>4) SYSTEM redirects user to the gameplay page.</p>
Post Condition	<ul style="list-style-type: none"> User's selected game is resumed

Error Condition	<ul style="list-style-type: none"> • NA
Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM must complete validation within 1 seconds

Use Case Identifier	UC-7a
Use Case Name	Chat: Private
Actors	User/Player Recipient
Pre-Conditions	<ul style="list-style-type: none"> • User and Recipient must be in the same game • Game must be in the diplomatic negotiations/placing orders phase
Flow of Control	<p>1) User selects recipient to chat with.</p> <p>2) SYSTEM retrieves or creates a chat session and displays previous chat logs with selected recipient from the DB</p> <p>3) User types message and hits send</p> <p>4) SYSTEM updates chat logs in the DB</p> <p>5) SYSTEM passes message to the recipient</p>
Post Condition	<ul style="list-style-type: none"> • User is able to see the previous chat logs with selected recipient • User is able to send and receive messages from selected recipient
Alternate	<ul style="list-style-type: none"> • NA
Error Condition	<ul style="list-style-type: none"> • User tries to send a blank message <ul style="list-style-type: none"> ◦ SYSTEM doesn't pass any message

Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM must send messages within 1 seconds

Use Case Identifier	UC-7b
Use Case Name	Chat: Public
Actors	User/Player Recipient(s)
Pre-Conditions	<ul style="list-style-type: none"> • User and Recipient(s) must be in the same game • Game must be in the diplomatic negotiations/placing orders phase
Flow of Control	<p>1) User selects "All" chat.</p> <p>2) SYSTEM creates new chat room in the DB if not already created</p> <p>3) User types message and hits send</p> <p>4) SYSTEM updates chat message history in the DB</p> <p>5) SYSTEM passes message to the recipient(s)</p>
Post Condition	<ul style="list-style-type: none"> • User is able to see the previous chat logs with selected recipient(s) • User is able to send and receive messages from selected recipient(s)
Alternate	<ul style="list-style-type: none"> • NA
Error Condition	<ul style="list-style-type: none"> • User tries to send a blank message <ul style="list-style-type: none"> ◦ SYSTEM does not pass any message • User tries to create a room with 1 recipient <ul style="list-style-type: none"> ◦ SYSTEM opens the one-on-one chat room instead
Non-Functional	<ul style="list-style-type: none"> • SYSTEM must send messages within 1 seconds

Requirement	
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Use Case Identifier	UC-8a
Use Case Name	Place Order - Move
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> • User must be in a game • Must be in the placing orders phase • SYSTEM is currently displaying the order menu • User has at least one unit (fleet or army)
Flow of Control	<p>1) User selects the move order</p> <p>2) SYSTEM displays location drop down</p> <p>3) User selects the location to move the unit to</p> <p>4) SYSTEM displays save button</p> <p>5) SYSTEM locally saves the order, updates the order list, and removes the unit from the list of available units</p>
Post Condition	<ul style="list-style-type: none"> • User stays on the gameplay page • User is given options to create more orders if available • User is given the option to delete an order from the order list
Alternate	<ul style="list-style-type: none"> • NA
Error Condition	<ul style="list-style-type: none"> • The territory the unit is intended to move to is not adjacent to the current territory • The order is not saved to the local order list
Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM saves the order and updates units within 1 second • SYSTEM must redirect to the game board or order screen (whichever is applicable) within 2 seconds

Use Case Identifier	UC-8b
Use Case Name	Place Order - Hold
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> • User must be in a game • Must be in the placing orders phase • SYSTEM currently displaying the order menu • User has at least one unit (fleet or army)
Flow of Control	<p>1) User selects the hold order</p> <p>2) SYSTEM locally saves the order, updates the order list, and removes the unit from the list of available units</p>
Post Condition	<ul style="list-style-type: none"> • User stays on the gameplay page • User is given options to create more orders if available • User is given the option to delete an order from the order list
Alternate	<ul style="list-style-type: none"> • NA
Error Condition	<ul style="list-style-type: none"> • The order is not saved to the local order list
Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM saves the order and updates units within 1 second • SYSTEM must redirect to the game board or order screen (whichever is applicable) within 2 seconds

Use Case Identifier	UC-8c
Use Case Name	Place Order - Support
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> • User must be in a game • Must be in the placing orders phase • SYSTEM currently displaying the order menu • User has at least one unit (fleet or army) • There must be one other unit that can move to an adjacent territory of the selected unit

Flow of Control	<p>1) User selects the support order</p> <p>2) SYSTEM displays three dropdowns location, unit and location they wish to support dropdown</p> <p>3) User selects the unit they wish to support and where they are moving to</p> <p>4) SYSTEM displays save button</p> <p>5) User chooses to save the order</p> <p>6) SYSTEM locally saves the order, updates the order list and removes the unit from the list of available units</p>
Post Condition	<ul style="list-style-type: none"> • User stays on the gameplay page • User is given options to create more orders if available • User is given the option to delete an order from the order list
Alternate	<ul style="list-style-type: none"> • NA
Error Condition	<ul style="list-style-type: none"> • The territory the unit is intended to move to is not adjacent to the current territory • The unit the command is supporting is not moving to the stated territory • The order is not saved to the local order list
Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM saves the order and updates units within 1 second • SYSTEM must redirect to the game board or order screen (whichever is applicable) within 2 seconds

Use Case Identifier	UC-8d
Use Case Name	Place Order - Convoy

Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> • User must be in a game • Must be in the placing orders phase • SYSTEM currently displaying the order menu • User has at least one fleet and army • The fleet(s) must be in oceanic territories, the army must be adjacent to the first fleet in the chain, and the last fleet in the chain must be adjacent to a coastal territory
Flow of Control	<p>1) User selects the convoy order</p> <p>2) SYSTEM displays two dropdowns army to convoy and where the army is to move</p> <p>3) User selects the army they wish to convoy and where they are moving to</p> <p>4) SYSTEM displays save button</p> <p>5) SYSTEM locally saves the order, updates the order list and removes the unit from the list of available units</p>
Post Condition	<ul style="list-style-type: none"> • User stays on the gameplay page • User is given options to create more orders if available • User is given the option to delete an order from the order list
Alternate	<ul style="list-style-type: none"> • NA
Error Condition	<ul style="list-style-type: none"> • The last fleet in the chain is not adjacent to the territory the army is moving to • Two fleets in the chain are not adjacent to each other • The order is not saved to the local order list
Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM saves the order and updates units within 1 second • SYSTEM must redirect to the game board or order screen (whichever is applicable) within 2 seconds

Use Case Identifier	UC-8e
Use Case Name	Place Order - Delete Existing Order
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> • User must be in a game • Must be in the placing orders phase • User must have placed an order without submitting it to the database • SYSTEM currently displaying the order menu
Flow of Control	<p>1) User clicks delete from the order menu</p> <p>2) SYSTEM gives a dropdown of all orders</p> <p>3) User then clicks on an order displayed in the order list and hits delete</p> <p>4) SYSTEM locally updates the order list and returns the unit to the list of available units</p>
Post Condition	<ul style="list-style-type: none"> • User stays on the gameplay page • User is given options to create more orders if available • User is given the option to delete an order from the order list
Alternate	<ul style="list-style-type: none"> • NA
Error Condition	<ul style="list-style-type: none"> • The order is not saved to the local order list
Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM saves the order and updates units within 1 second • SYSTEM must redirect to the game board or order screen (whichever is applicable) within 2 seconds

Use Case Identifier	UC-9
Use Case Name	Submit Orders
Actors	User/Player

Pre-Conditions	<ul style="list-style-type: none"> • User must be in a game • Must be in the placing orders phase • Orders have been saved for all units in the order list
Flow of Control	<p>1) User clicks “submit orders”</p> <p>2) SYSTEM waits for round to end</p> <p>3) SYSTEM retrieves locally saved orders, evaluates them, and saves round information in DB.</p> <p>4) SYSTEM displays results of the round</p>
Post Condition	<ul style="list-style-type: none"> • User stays on the gameplay page
Alternate	<ul style="list-style-type: none"> • NA
Error Condition	<ul style="list-style-type: none"> • NA
Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM evaluates the orders and saves the results in the DB within 5 seconds • SYSTEM displays the results of the round within 1 second

Use Case Identifier	UC-10
Use Case Name	Retreat Or Disband Order
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> • User must be in a game • Order resolution has completed for the initial movement phase • User lost a battle or has more units than supply centers • SYSTEM displays the armies/fleets that need to retreat or be disbanded
Flow of Control	<p>1) User selects retreat destination or disband order</p>

	<p>2) SYSTEM records orders in DB and waits for retreat/disband phase to end</p> <p>3) SYSTEM evaluates orders and saves retreat/disband phase information in DB</p> <p>4) SYSTEM displays results of the retreat/disband phase</p>
Post Condition	<ul style="list-style-type: none"> User should be able to see the results of the retreat/disband phase
Alternate	<ul style="list-style-type: none"> NA
Error Condition	<ul style="list-style-type: none"> User submits 1 or more invalid retreat order <ul style="list-style-type: none"> SYSTEM notifies the player that order(s) was invalid
Non-Functional Requirement	<ul style="list-style-type: none"> SYSTEM verifies the retreat/disband orders and sends results within 1 second

Use Case Identifier	UC-11
Use Case Name	Build New Unit
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> User must be in a game Retreat/disband phase has completed User must have more supply centers than number of units User must have a supply center in their home country that is unoccupied
Flow of Control	<p>1) User selects type of unit to be built on the supply center</p> <p>2) SYSTEM records orders in DB and waits for build phase to end</p> <p>3) SYSTEM evaluates orders and saves build phase</p>

	<p>information in DB.</p> <p>4) SYSTEM displays results of the build phase</p>
Post Condition	<ul style="list-style-type: none"> User should be able to see the results of the build phase
Error Condition	<ul style="list-style-type: none"> NA
Non-Functional Requirement	<ul style="list-style-type: none"> SYSTEM verifies the build orders and sends results within 1 second

Use Case Identifier	UC-12
Use Case Name	Leave Session
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> User must be in a game
Flow of Control	<p>1) User hits "Quit" Icon in the game</p> <p>2) SYSTEM saves all relevant actions made by the user prior to exiting the game session, and sends it to BACKEND SYSTEM</p> <p>3) SYSTEM redirects user to the game lobby page</p>
Post Condition	<ul style="list-style-type: none"> All relevant data of the session is saved User is on the game lobby page
Alternate	<ul style="list-style-type: none"> NA
Error Condition	<ul style="list-style-type: none"> NA
Non-Functional Requirement	<ul style="list-style-type: none"> SYSTEM must complete validation within 1 seconds

Use Case Identifier	UC-13
Use Case Name	Withdraw
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> User must be in a game
Flow of Control	<p>1) User hits “Withdraw From Game” Icon in the game</p> <p>2) SYSTEM prompts a warning that the user will lose the game</p> <p>3) User accepts the terms</p> <p>4) SYSTEM updates the user’s status in the game by sending this information to BACKEND SYSTEM</p> <p>5) SYSTEM redirects user to the game lobby page</p>
Post Condition	<ul style="list-style-type: none"> User is no longer in a game User’s armies and fleets become neutral/inactive User is routed back to the game lobby page
Alternate	<ul style="list-style-type: none"> NA
Error Condition	<ul style="list-style-type: none"> NA
Non-Functional Requirement	<ul style="list-style-type: none"> SYSTEM must complete validation within 1 seconds

Use Case Identifier	UC-14
Use Case Name	View Game Rules
Actors	User/Player

Pre-Conditions	<ul style="list-style-type: none"> User must be on the game lobby page or in a game
Flow of Control	<p>1) User hits "View Game Rules" Icon in the game</p> <p>2) SYSTEM displays the rules window</p>
Post Condition	<ul style="list-style-type: none"> User is on the rules page
Alternate	<ul style="list-style-type: none"> NA
Error Condition	<ul style="list-style-type: none"> NA
Non-Functional Requirement	<ul style="list-style-type: none"> SYSTEM must complete validation within 1 seconds SYSTEM must redirect to the game lobby page upon successful login within 1 second

Use Case Identifier	UC-15
Use Case Name	Respond To Draw
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> User must be in a game User must have a draw request
Flow of Control	<p>1) User receives a draw offer</p> <p>2) User sends a response (Accept)</p> <p>3) SYSTEM sends response to BACKEND SYSTEM</p> <p>4) SYSTEM waits for other responses until all are received or a decline is received</p> <p>5) If all users accept, game ends in a draw, BACKEND</p>

	SYSTEM is updated, an result is displayed to users
Post Condition	<ul style="list-style-type: none"> • A draw response is saved • Game ends (all accept) • Game continues (at least one decline/alternate flow)
Alternate	2) User sends a response (Decline) <ul style="list-style-type: none"> • SYSTEM sends response to BACKEND SYSTEM • SYSTEM invalidates draw offer
Error Condition	<ul style="list-style-type: none"> • NA
Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM must complete validation within 1 seconds

Use Case Identifier	UC-16
Use Case Name	Send Draw Offer
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> • User must be in a game
Flow of Control	1) User hits send draw to all players 2) SYSTEM sends a draw request to the BACKEND SYSTEM 3) BACKEND SYSTEM forwards the draw offer to all other players
Post Condition	<ul style="list-style-type: none"> • Draw request is sent to all players
Alternate	<ul style="list-style-type: none"> • NA
Error Condition	<ul style="list-style-type: none"> • NA

Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM must complete validation within 1 seconds
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Use Case Identifier	UC-17
Use Case Name	View Game Statistics
Actors	User/Player
Pre-Conditions	<ul style="list-style-type: none"> • User must be on the game lobby page
Flow of Control	<p>1) User clicks game statistics button</p> <p>2) SYSTEM sends a request to BACKEND SYSTEM to gather current user's statistics</p> <p>3) SYSTEM returns relevant statistics</p> <p>3) SYSTEM displays statistics</p>
Post Condition	<ul style="list-style-type: none"> • User can view game history and statistics
Alternate	<ul style="list-style-type: none"> • NA
Error Condition	<ul style="list-style-type: none"> • NA
Non-Functional Requirement	<ul style="list-style-type: none"> • SYSTEM must complete validation within 1 seconds

Use Case Identifier	UC-18
Use Case Name	View Move History
Actors	User/Player

Pre-Conditions	<ul style="list-style-type: none"> User must be on the game lobby page
Flow of Control	<p>1) User clicks move history button</p> <p>2) SYSTEM sends a request to the BACKEND SYSTEM to gather current user's move history</p> <p>3) SYSTEM returns relevant move history</p> <p>3) SYSTEM displays move history</p>
Post Condition	<ul style="list-style-type: none"> User can view move history
Alternate	<ul style="list-style-type: none"> NA
Error Condition	<ul style="list-style-type: none"> NA
Non-Functional Requirement	<ul style="list-style-type: none"> SYSTEM must complete validation within 1 seconds