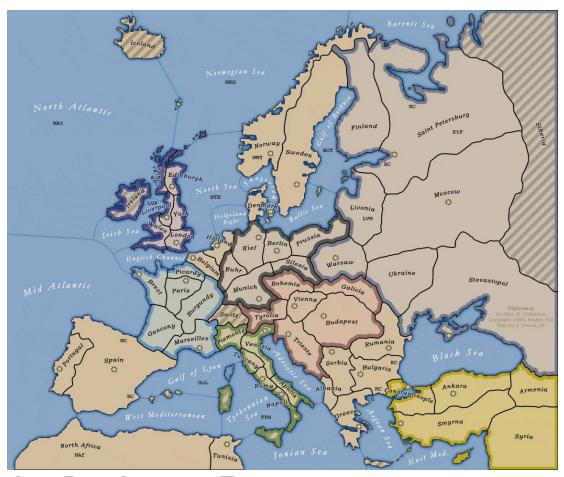
Diplomacy

Use Cases



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Revision History

| Date | Version | Description | Author |
|-----------|---------|----------------|--------|
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| | | | |
| | | | |

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| Use Case Identifier | UC-1 | |
|---------------------|---|--|
| Use Case Name | Register | |
| Actors | User/Player | |
| Pre-Conditions | User must have the game installed | |
| Flow of Control | | |
| | User accesses SYSTEM login page by starting the game | |
| | | 2) SYSTEM displays login page |
| | 3) User selects create account | |
| | | SYSTEM changes login page to register page |
| | 5) User enters username and password and submits data | |
| | | 6) SYSTEM sends information to BACKEND SYSTEM |
| | | 7) BACKEND SYSTEM verifies username is available and SYSTEM creates an account |
| | | 8) SYSTEM informs user an account has been created |
| | | 9) SYSTEM redirects user to the game lobby page |
| Post Condition | 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 BACKEND SYSTEM informs SYSTEM that the username is already exists | |

| | SYSTEM informs user that the username is in user User repeats 5 | |
|-------------------------------|--|--|
| Error Condition | Username and password are left blank The entered data in the field are in incorrect format: Username is invalid Password is invalid | |
| Non-Functional Requirement | SYSTEM must complete validation within 1 seconds | |

| Use Case Identifier | UC-2 | |
|---------------------|--|--|
| Use Case Name | Login | |
| Actors | User/Player | |
| Pre-Conditions | User must know his/her username and password | |
| Flow of Control | 1) User accesses SYSTEM login page by starting the game 3) User enters username and password and submits data | 2) SYSTEM displays login page 4) SYSTEM sends the username and password to the BACKEND SYSTEM 5) BACKEND SYSTEM verifies submitted data and authenticates user and sends information back to the user 6) SYSTEM redirects user to the game lobby page |
| Post Condition | User is logged in and sees User is able to navigate the profile | the game lobby page e game lobby page and their |

| Alternate | 3) User enters invalid username/password 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 | Username and password are left blank The entered data in the field are in incorrect format: Username is invalid Password is invalid |
| Non-Functional Requirement | 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 | User must be logged into | the game |
| Flow of Control | 1) User hits "Sign out" Icon in the game | 2) SYSTEM saves all relevant actions made by the user prior to logout, and sends it to the BACKEND SYSTEM 3) BACKEND SYSTEM saves all information and sends a notification the the front 4) SYSTEM informs user that he or she has been logged out 5) SYSTEM redirects user to login page |

| Post Condition | All relevant data of the session is saved User is signed out of the game |
|-------------------------------|---|
| Alternate | • NA |
| Error Condition | • NA |
| Non-Functional Requirement | SYSTEM must complete validation within 1 seconds |

| Use Case Identifier | UC-4 | |
|---------------------|---|---|
| Use Case Name | Start Game | |
| Actors | User/Player | |
| Pre-Conditions | User must be on the game lobby page | |
| Flow of Control | 1) User selects start new game | |
| | | 2) SYSTEM directs user to new game page |
| | User invites other players by entering their username | |
| | | 4) SYSTEM sends a request to BACKEND SYSTEM |
| | | 5) BACKEND SYSTEM validates and sends a response |
| | | 6) SYSTEM informs user that entered username is valid |
| | 7) User selects game constraints | |
| | | 8) SYSTEM adds game constraints |
| | 9) User hits submit | |

| | 10) SYSTEM sends a request to update BACKEND SYSTEM 11) The BACKEND SYSTEM sends requests to all other players and creates a game | |
|-------------------------------|---|--|
| Post Condition | Game invitations are sent to selected users. A new game is created | |
| Alternate | 3) Username does not exist or player player is unavailable • BACKEND SYSTEM informs SYSTEM the invited user is unavailable • SYSTEM informs user about the invited player • User repeats steps 3 | |
| Error Condition | User may enter an invalid username for other players | |
| Non-Functional Requirement | SYSTEM must complete validation within 1 seconds | |

| Use Case Identifier | UC-5 | |
|---------------------|--|--|
| Use Case Name | Accept Game | |
| Actors | User/Player | |
| Pre-Conditions | User must be on the gameThe Game invite Icon must | • • • |
| Flow of Control | User hits "Accept/Decline" game invitations on the game lobby page | 2) SYSTEM sends information to BACKEND SYSTEM 3) SYSTEM enters user into the game by updating BACKEND SYSTEM 4) SYSTEM redirects user to |

| | the gameplay page |
|-------------------------------|---|
| Post Condition | User is allowed to play a game that he or she was invited to |
| Alternate | User declines game BACKEND SYSTEM does not enter user to the game |
| Error Condition | • NA |
| Non-Functional Requirement | SYSTEM must complete validation within 1 seconds |

| Use Case Identifier | UC-6 | |
|-------------------------------|---|---|
| Use Case Name | Resume Game | |
| Actors | User/Player | |
| Pre-Conditions | User must have accepted a game User must be in the game lobby page | |
| Flow of Control | 1) User hits "Resume Game" | |
| | icon on the game lobby page | |
| | | 2) SYSTEM requests game information from the BACKEND SYSTEM |
| | | 3) BACKEND SYSTEM sends game information to the front |
| | | 4) SYSTEM redirects user to the gameplay page. |
| Doct Condition | . Hoow's salested game is we | an una a d |
| Post Condition | User's selected game is resumed | |
| Error Condition | • NA | |
| Non-Functional Requirement | SYSTEM must complete validation within 1 seconds | |

| Use Case Identifier | UC-7a | |
|-------------------------------|---|--|
| Use Case Name | Chat: Private | |
| Actors | User/Player Recipient | |
| Pre-Conditions | User and Recipient must be in the same game Game must be in the diplomatic negotiations/placing orders phase | |
| Flow of Control | User selects recipient to chat with. | |
| | SYSTEM retrieves or creates a chat session and displays previous chat logs with selected recipient from the DB | |
| | User types message and hits send | |
| | 4) SYSTEM updates chat logs in the DB | |
| | 5) SYSTEM passes message to the recipient | |
| Post Condition | User is able to see the previous chat logs with selected recipient User is able to send and receive messages from selected recipient | |
| Alternate | • NA | |
| Error Condition | User tries to send a blank message SYSTEM doesn't pass any message | |
| Non-Functional Requirement | SYSTEM must send messages within 1 seconds | |

| Use Case Identifier | UC-7b | |
|-------------------------------|--|--|
| Use Case Name | Chat: Public | |
| Actors | User/Player Recipient(s) | |
| Pre-Conditions | User and Recipient(s) musGame must be in the diplo phase | et be in the same game matic negotiations/placing orders |
| Flow of Control | | |
| | 1) User selects "All" chat. | |
| | | 2) SYSTEM creates new chat room in the DB if not already created |
| | User types message and hits send | |
| | | 4) SYSTEM updates chat message history in the DB |
| | | 5) SYSTEM passes message to the recipient(s) |
| Post Condition | recipient(s) | vious chat logs with selected eceive messages from selected |
| Alternate | • NA | |
| Error Condition | User tries to send a blank SYSTEM does not User tries to create a room SYSTEM opens the | pass any message |
| Non-Functional Requirement | SYSTEM must send mess | ages within 1 seconds |

| Use Case Identifier | UC-8a |
|---------------------|-------|
|---------------------|-------|

| Use Case Name | Place Order - Move | |
|-------------------------------|--|--|
| Actors | User/Player | |
| Pre-Conditions | 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 | | |
| | 1) User selects the move order | |
| | SYSTEM displays location drop down | |
| | User selects the location to move the unit to | |
| | 4) SYSTEM displays save button | |
| | 5) SYSTEM locally saves the order, updates the order list, and removes the unit from the list of available units | |
| Post Condition | 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 | • NA | |
| Error Condition | 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 | 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 | 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 | | |
| | 1) User selects the hold order | |
| | SYSTEM locally saves the order, updates the order list, and removes the unit from the list of available units | |
| Post Condition | 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 | • NA | |
| Error Condition | The order is not saved to the local order list | |
| Non-Functional Requirement | 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 | 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 | User selects the support order 2) SYSTEM displays three |

| | User selects the unit they wish to support and where they | dropdowns location, unit and location they wish to support dropdown |
|-------------------------------|---|---|
| | are moving to | |
| | | SYSTEM displays save button |
| | 5) User chooses to save the order | |
| | | 6) SYSTEM locally saves the order, updates the order list and removes the unit from the list of available units |
| Post Condition | | ay page eate more orders if available delete an order from the order list |
| Alternate | • NA | |
| Error Condition | the current territory | ended to move to is not adjacent to supporting is not moving to the the local order list |
| Non-Functional Requirement | | and updates units within 1 second the game board or order screen vithin 2 seconds |

| Use Case Identifier | UC-8d |
|---------------------|---|
| Use Case Name | Place Order - Convoy |
| Actors | User/Player |
| Pre-Conditions | User must be in a game Must be in the placing orders phase SYSTEM currently displaying the order menu |

| | ` ' | ceanic territories, the army must be n the chain, and the last fleet in the |
|-------------------------------|--|---|
| Flow of Control | User selects the convoy order | |
| | | 2) SYSTEM displays two dropdowns army to convoy and where the army is to move |
| | User selects the army they wish to convoy and where they are moving to | |
| | | 4) SYSTEM displays save button |
| | | 5) SYSTEM locally saves the order, updates the order list and removes the unit from the list of available units |
| Post Condition | | lay page reate more orders if available o delete an order from the order list |
| Alternate | • NA | |
| Error Condition | 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 | | r and updates units within 1 second the game board or order screen within 2 seconds |

| Use Case Identifier | UC-8e |
|---------------------|-------------------------------------|
| Use Case Name | Place Order - Delete Existing Order |

| Actors | User/Player | |
|-------------------------------|---|--|
| Pre-Conditions | 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 | | |
| | User clicks delete from the order menu | |
| | 2) SYSTEM gives a dropdown of all orders | |
| | User then clicks on an order displayed in the order list and hits delete | |
| | 4) SYSTEM locally updates the order list and returns the unit to the list of available units | |
| Post Condition | 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 | • NA | |
| Error Condition | The order is not saved to the local order list | |
| Non-Functional Requirement | 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 | 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 | User clicks "submit orders" | |
|-------------------------------|--|---|
| | , | 2) SYSTEM waits for round to end |
| | | SYSTEM retrieves locally saved orders, evaluates them, and saves round information in DB. |
| | | 4) SYSTEM displays results of the round |
| Post Condition | User stays on the gameplay page | |
| Alternate | • NA | |
| Error Condition | • NA | |
| Non-Functional Requirement | 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 | 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 | User selects retreat destination or disband order 2) SYSTEM records orders in DB and waits for retreat/disband phase to end | |

| | 3) SYSTEM evaluates orders and saves retreat/disband phase information in DB 4) SYSTEM displays results of the retreat/disband phase |
|-------------------------------|---|
| Post Condition | User should be able to see the results of the retreat/disband phase |
| Alternate | • NA |
| Error Condition | User submits 1 or more invalid retreat order SYSTEM notifies the player that order(s) was invalid |
| Non-Functional Requirement | 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 | 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 | User selects type of unit to be built on the supply center | SYSTEM records orders in |
| | | DB and waits for build phase to end |
| | | SYSTEM evaluates orders and saves build phase information in DB. |
| | | 4) SYSTEM displays results of the build phase |

| Post Condition | User should be able to see the results of the build phase |
|-------------------------------|--|
| Error Condition | • NA |
| Non-Functional Requirement | 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 | User must be in a game | |
| Flow of Control | 1) User hits "Quit" Icon in the game | |
| | 2) SYSTEM saves all relevant actions made by the user prior to exiting the game session, and sends it to BACKEND SYSTEM | |
| | 3) SYSTEM redirects user to the game lobby page | |
| Post Condition | All relevant data of the session is saved User is on the game lobby page | |
| Alternate | • NA | |
| Error Condition | • NA | |
| Non-Functional Requirement | SYSTEM must complete validation within 1 seconds | |

| Use Case Identifier | UC-13 |
|---------------------|-------|
|---------------------|-------|

| Use Case Name | Withdraw | |
|-------------------------------|---|---|
| Actors | User/Player | |
| Pre-Conditions | User must be in a game | |
| Flow of Control | | |
| | User hits "Withdraw From Game" Icon in the game | |
| | | 2) SYSTEM prompts a warning that the user will lose the game |
| | 3) User accepts the terms | |
| | | 4) SYSTEM updates the user's status in the game by sending this information to BACKEND SYSTEM |
| | | 5) SYSTEM redirects user to the game lobby page |
| Post Condition | 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 | • NA | |
| Error Condition | • NA | |
| Non-Functional Requirement | SYSTEM must complete validation within 1 seconds | |

| Use Case Identifier | UC-14 | |
|---------------------|--|--|
| Use Case Name | View Game Rules | |
| Actors | User/Player | |
| Pre-Conditions | User must be on the game lobby page or in a game | |
| Flow of Control | | |

| | User hits "View Game Rules" Icon in the game | |
|-------------------------------|---|-------------------------------------|
| | | 2) SYSTEM displays the rules window |
| Post Condition | User is on the rules page | |
| Alternate | • NA | |
| Error Condition | • NA | |
| Non-Functional Requirement | 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 | User must be in a gameUser must a have a draw request | | |
| Flow of Control | 1) User receives a draw offer 2) User sends a response (Accept) 3) SYSTEM sends response to BACKEND SYSTEM 4) SYSTEM waits for other responses until all are received or a decline is received | | |
| | 5) If all users accept, game ends in a draw, BACKEND SYSTEM is updated, an result is displayed to users | | |

| Post Condition | A draw response is saved Game ends (all accept) Game continues (at least one decline/alternate flow) |
|-------------------------------|--|
| Alternate | 2) User sends a response (Decline) SYSTEM sends response to BACKEND SYSTEM SYSTEM invalidates draw offer |
| Error Condition | • NA |
| Non-Functional Requirement | SYSTEM must complete validation within 1 seconds |

| Use Case Identifier | UC-16 | | |
|-------------------------------|--|--|--|
| Use Case Name | Send Draw Offer | | |
| Actors | User/Player | | |
| Pre-Conditions | User must be in a game | | |
| Flow of Control | User hits send draw to all players | | |
| | SYSTEM sends a draw request to the BACKEND SYSTEM | | |
| | 3) BACKEND SYSTEM forwards the draw offer to all other players | | |
| Post Condition | Draw request is sent to all players | | |
| Alternate | • NA | | |
| Error Condition | • NA | | |
| Non-Functional Requirement | SYSTEM must complete validation within 1 seconds | | |

| Use Case Identifier | UC-17 | | |
|-------------------------------|--|--|--|
| Use Case Name | View Game Statistics | | |
| Actors | User/Player | | |
| Pre-Conditions | User must be on the game lobby page | | |
| Flow of Control | User clicks game statistics button | | |
| | В |) SYSTEM sends a request to ACKEND SYSTEM to gather urrent user's statistics | |
| | |) SYSTEM returns relevant tatistics | |
| | 3 |) SYSTEM displays statistics | |
| Post Condition | User can view game history and statistics | | |
| Alternate | • NA | | |
| Error Condition | • NA | | |
| Non-Functional Requirement | SYSTEM must complete validation within 1 seconds | | |

| Use Case Identifier | UC-18 | |
|---------------------|-------------------------------------|--|
| Use Case Name | View Move History | |
| Actors | User/Player | |
| Pre-Conditions | User must be on the game lobby page | |
| Flow of Control | | |
| | 1) User clicks move history | |

| | button | |
|-------------------------------|--|--|
| | | 2) SYSTEM sends a request to the BACKEND SYSTEM to gather current user's move history |
| | | SYSTEM returns relevant move history |
| | | 3) SYSTEM displays move history |
| Post Condition | User can view move his | tory |
| Alternate | • NA | |
| Error Condition | • NA | |
| Non-Functional Requirement | SYSTEM must complete validation within 1 seconds | |