



Operation Contracts

Operations:

endTurn()

Cross-References: Use-Cases:

End Turn

Pre-Conditions:

- Game must be on.
- It must be the player's turn.
- The owner of the turn, the player, can be in any phase.

Post-Conditions:

- Arguments are not required for this operation.
- Player decided to end his/her turn. It gives an option next player to start his/her turn.
- Next player is now being current player. (Association Formed)
- The next player's turn begins.

Operations:

loadGame(Game game)

Cross-References: Use-Cases:

Load

Pre-Conditions:

- At least one saved game state must be available.

Post-Conditions:

- The chosen saved game state is effectively loaded.
- A Game instance is created currentGame. (Instance creation)
- The given game argument is associated with currentGame. (Association Formed)
- A description for the game is associated with a GameDescription/ GameState based on the game condition. (Association Formed)

Operations:

saveGame(String name)

Cross-References: Use-Cases:

save

Pre-Conditions:

- The game should be actively ongoing.

Post-Conditions:

- The game's existing progress is successfully stored for subsequent access.
- A Game instance is created savedGame. (Instance creation)
- The currentGame is associated with savedGame. (Association Formed)
- savedGame.name became name. (Attribute Modification)
- savedGame.confirm became T/F based on the user action. (Attribute Modification)
- A description for the game is associated with a GameDescription/ GameState based on the game condition. (Association Formed)
- savedGame is added to a list of pre-played games which is savedGames. (Attribute Modification)

Operations:

selectTerritory()

Cross-References: Use-Cases:

Prepare For Attack

Pre-Conditions:

- The player must have troops in the territories adjoining the intended region to strengthen the desired location.
- The game must be in progress.
- The player should be in the attacking phase of their gameplay turn.

Post-Conditions:

- Player has chosen an adjoining territory which was required troops.
- Selected territory was associated to territory. (Association Formed)
- territory.isAdjoin was checked and if it was, it set to True. (Attribute Modification)
- territory.troops was changed based on the player decision for putting the troops on that territory. (Attribute Modification)

Operations:

changePhase()

Cross-References: Use-Cases:

Prepare For Attack

Pre-Conditions:

- The player must have troops in the territories adjoining the intended region to strengthen the desired location.
- The game must be in progress.
- The player should be in the attacking phase of their gameplay turn.
- Territory should be selected.

Post-Conditions:

- Player phase was associated to territory fortification. (Association Formed)

Operations:

fortifyTerritory()

Cross-References: Use-Cases:

Prepare For Attack

Pre-Conditions:

- The player must have troops in the territories adjoining the intended region to strengthen the desired location.
- The game must be in progress.
- The player should be in the attacking phase of their gameplay turn.
- Territory must be selected.
- Player phase must be changed.

Post-Conditions:

- A Troop/Army troop instance created. (Instance Creation)
- The number of troops were decide by player and troop.quantity became that value. (Attribute Modification)
- troop.quantity was updated by adding territory's troop quantity(Attribute Modification)
- territory.troop was associated with troop. (Association Formed)