

Contract CO1: requestHelpScreen

Operation: requestHelpScreen()

Cross references: Use Cases: access-help-screen

Preconditions: The Game paused the game or is on the login screen

Postconditions:

- Display access help screen
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Contract CO2: activateBuildingMode

Operation: activateBuildingMode

Cross references: Use Cases: Build a Map

Preconditions: The user is logged in

Postconditions:

- The display switches to the building mode screen
 - The cursor of the user is in the simple brick field by default
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Contract CO3: moveBrickToPosition

Operation: moveBrickToPosition(brick : Brick, position : Position)

Cross references: Use Cases: Build a Map

Preconditions: The user is on the building mode screen and there is at least one brick in the map

Postconditions:

- The brick places in the given position
 - Brick object *brick* is get
 - brick.position becomes position
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Contract CO4: saveMap

Operation: saveMap(mapName : String)

Cross references: Use Cases: Build a Map

Preconditions: The user is on the building mode screen

Postconditions:

- map.name becomes mapName
 - The map is created
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Contract CO5: setBrickNumbers

Operation: setBrickNumbers(simple: integer, halfMetal: integer, mine: integer, wrapper: integer)

Cross references: Use Cases: Build a Map

Preconditions: The user is on the building mode screen

Postconditions:

- A Map instance *map* is created
 - map is associated with the current map
 - map.numSimpleBrick becomes simple
 - map.numHalfMetalBrick becomes halfMetal
 - map.numMineBrick becomes mine
 - map.numWrapperBrick becomes wrapper
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Contract CO6: createAcc

Operation: createAcc(user: Username, password: Password)

Cross references: Use Cases: Create an Account

Preconditions: The user is on the account creation screen

Postconditions:

- An *Account* instance is created
 - Account.user becomes Username
 - Account.password becomes Password
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Contract CO7: createAcc

Operation: createNewAcc

Cross references: Use Cases: Create an Account

Preconditions: The user is on the login screen

Postconditions:

- The Board displays the account creation screen
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Contract CO8: createAcc

Operation: createNewAcc

Cross references: Use Cases: Create an Account

Preconditions: The user is on the login screen

Postconditions:

- The Board displays the account creation screen
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Contract CO9: hideAlien

Operation: hideAlien()

Cross references: Use Cases: Hit-Harmful-Alien

Preconditions: Game is not paused and at least a harmful alien is on the board.

Postconditions:

- Harmful alien was removed after it had been hit by the ball.
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Contract CO10: movePaddle

Operation: movePaddle()

Cross references: Use Cases: Hit-Harmful-Alien

Preconditions: Game is not paused

Postconditions:

- Paddle's position was changed according to the movement command.
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Contract CO11: showBallMovement

Operation: showBallMovement()

Cross references: Use Cases: Hit-Harmful-Alien

Preconditions: Game is not paused

Postconditions:

- Ball's new position was shown to user.
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Contract CO12: loadGame

Operation: loadGame(saved_game: GameMetaData)

Cross references: Use Cases: load-saved-game

Preconditions: There are already saved games

Postconditions:

- The Game loads the selected saved game into the board
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Contract CO13: requestSavedGamesList

Operation: requestSavedGamesList()

Cross references: Use Cases: load-saved-game

Preconditions: There are already saved games

Postconditions:

- User receives a list of saved games
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Contract CO14: requestResumeGame

Operation: requestResumeGame()

Cross references: Use Cases: resume-the-game

Preconditions: There are already a paused games

Postconditions:

- The Game resumes the paused game and hides the pause screen
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Contract CO15: enterSavename

Operation: enterSaveName()

Cross references: Use Cases: save-the-game

Preconditions: user clicked save button

Postconditions:

- User was prompted to submit a save name.
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Contract CO16: printSaveSuccessful

Operation: printSaveSuccessful()

Cross references: Use Cases: save-the-game

Preconditions: user submitted a save name to Game

Postconditions:

- User saw a message denoting that save operation was successful.
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Contract CO17: showPauseMenu

Operation: showPauseMenu()

Cross references: Use Cases: save-the-game

Preconditions: user chooses pause menu option

Postconditions:

- save menu was opened for user
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Contract CO18: submitSavename

Operation: submitSaveName(saveName)

Cross references: Use Cases: save-the-game

Preconditions: user is prompted to enter a save name

Postconditions:

- save name entered by user was sent to Game
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