

List of System Test Cases

1. Client Side

a. TestAccountHandler

1. testRegisterUser()
2. testRegisterUserAlreadyRegistered()
3. testRegisterUserFailure()
4. testUnregisterUser()
5. testValidateLogin()
6. testLogout()

b. TestBoardSquare

1. testConstructorWithPlayerColor()
2. testClearPiece()
3. testIsEmpty()
4. testIsEmpty_not()
5. testSetPiece()
6. testSetPiece_null()

c. TestGameBoard

1. testGetPieceAt_normal()
2. testGetPieceAt_column_too_big()
3. testGetPieceAt_column_too_small()
4. testGetPieceAt_empty_square()
5. testGetPieceAt_row_too_big()
6. testGetPieceAt_row_too_small()
7. testGetSquareAt_top_left_table_edge()
8. testGetSquareAt_bottom_right_table_edge()
9. testGetSquareAt_column_too_big()
10. testGetSquareAt_column_too_small()
11. testGetSquareAt_row_too_big()
12. testGetSquareAt_row_too_small()
13. testGetValidMoves_corner()
14. testGetValidMoves_leopard()
15. testMovePiece()

d. TestGamePiece

1. testSetLocation_bottom_right_corner()
2. testSetLocation_column_too_big()
3. testSetLocation_column_too_small()
4. testSetLocation_row_too_big()
5. testSetLocation_row_too_small()
6. testSetPowerLevel_zero()
7. testSetPowerLevel_too_small()

8. testSetPowerLevel_eight()
9. testSetPowerLevel_too_big()
10. testCanOccupy_river()
11. testCanOccupy_river_rat()
12. testCanOccupy_friendly_piece()
13. testCanOccupy_friendly_den()
14. testCanOccupy_square_not_adjacent_row()
15. testCanOccupy_square_not_adjacent_column()
16. testCanOccupy_square_not_adjacent_leopard()

2. Server Side

Total of 30 tests, all written using Cucumber and Gherkin. Each can include a number of scenarios. Each scenario contains a number of steps to define an initial state definition, an action to perform, then an expected set of outcomes.

1. Feature: Login
 - a. Scenario: Login w/ correct credentials
 - i. Given an account exists
 - ii. When that account logs in
 - iii. They are authenticated
 - iv. And the client is sent a success message
 - b. Scenario: Login w/ incorrect credentials
 - i. Given an account exists
 - ii. When a user logs in with incorrect credentials
 - iii. Then they are not authenticated
 - iv. And the client is sent an error response
 - c. Scenario: Account locked after 3 bad attempts
 - i. Given an account exists
 - ii. When the login with bad credentials 3 times
 - iii. Then their account is locked
 - iv. And the client is sent an error response
 - d. Scenario: Unregistered user logs in
2. Feature: Log out
 - a. Scenario: Normal logout
 - i. Given the account exists
 - ii. And the user has logged in
 - iii. When they log out
 - iv. Then their session is expired
3. Feature: Unregister
 - a. Scenario: Normal Un-Registration
 - i. Given an account exists

- ii. And the user is logged in
- iii. When they unregister their account
- iv. Then they are logged out
- v. And their login info is removed