Software Engineering Group Project

Test Report

|  |  |
| --- | --- |
| Author: | Dustin Baker [dub4] |
| Config Ref: | SE\_GP17\_TestReport |
| Date: | 5th May 2023 |
| Version: | 0.4 |
| Status: | Release |

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CONTENTS

CONTENTS 2

1. Test Report 3

1.1 Regression Iteration x – dd/mm/yy 3

REFERENCES 10

DOCUMENT HISTORY 10

# Test Report

The following Test Reports outline the results of regression tests for the “Chess Tutor Application”.

Each test is referenced via a “Test Ref” which relates to that seen in the “Test Specification” [1].

## Regression Tests Iteration 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Ref** | **Test Content** | **Result** | **Explanation** |
| **SE-F-001** | Check that the menu prompts are displayed upon starting the application | Pass |  |
| **SE-F-002** | Check that the "New Game" prompt can be selected | Pass |  |
| **SE-F-003** | Check that the escape key returns the user to the previous screen | Pass |  |
| **SE-F-004** | Check the new game setup allows Username entries | Pass |  |
| **SE-F-005** | Check the new game setup does not allow an empty name entry | Pass |  |
| **SE-F-006** | Check that the “New Game” setup does not allow username with invalid characters (new lines characters, special characters) | Pass |  |
| **SE-F-007** | Check that the program responds correctly to a name which exceeds the character limit of 20 | Pass |  |
| **SE-F-008** | Check that the "Submit" prompt can be selected | Pass |  |
| **SE-F-009** | Check that the "Load Game" prompt can be selected if a save file is available | Pass |  |
| **SE-F-010** | Check that the "Load Game" prompt cannot be selected if no save files are available | Fail | The User is able to select “Load Old Game” when there are no files available and its displays the empty file explorer |
| **SE-F-011** | Check that the "Quit" prompt can be selected without issue | Pass |  |
| **SE-F-012** | Check that the username entries are saved to the file | Fail | Upon saving a game, no file is saved |
| **SE-F-013** | Check that the User colour is kept track of in save file | Fail | Upon saving a game, no file is saved |
| **SE-F-014** | Check that the Users pieces are kept track of (initial state) | Fail | Upon saving a game, no file is saved |
| **SE-F-015** | Check the Users pieces are kept track of after a piece is taken | Fail | Upon saving a game, no file is saved |
| **SE-F-016** | Check the initial position of the pieces is correct | Fail | Upon saving a game, no file is saved |
| **SE-F-017** | Check that White moves first | Pass |  |
| **SE-F-018** | Check that the program indicates whose turn it is | Pass |  |
| **SE-F-019** | Check that the pieces are presented in an unambiguous way | Pass |  |
| **SE-F-020** | Check that only the current User's pieces can be selected | Fail | The piece can be selected and is seen with a white highlight. |
| **SE-F-021** | Check that the User can select different pieces during their turn | Pass |  |
| **SE-F-022** | Check that the pieces change appearance when selected | Pass |  |
| **SE-F-023** | Check the program responds correctly when the user during piece selection clicks outside the board. | Pass |  |
| **SE-F-024** | Check the User can’t select a piece after they’ve moved another piece that turn. | Fail | The piece can be selected and is seen with a white highlight. |
| **SE-F-025** | Check to see if the program responds when the user tries to move their own piece onto a friendly piece | Pass |  |
| **SE-F-026** | Check that all the legal moves are displayed when a Pawn is selected | Pass |  |
| **SE-F-027** | Check the Pawn can only move 1 or 2 spaces for its first move | Pass |  |
| **SE-F-028** | Check the Pawn can only move 1 space for every move that is not its first | Pass |  |
| **SE-F-029** | Check that a Pawn can take a piece diagonally forward | Pass |  |
| **SE-F-030** | Check that a Pawn can perform en passant to take a piece | Fail | The Pawn is unable to take the other via en passent. |
| **SE-F-031** | Check that all legal moves are displayed when a Rook is selected | Pass |  |
| **SE-F-032** | Check that a Rook can move Orthogonally | Pass |  |
| **SE-F-033** | Check that a Rook can move Orthogonally to take pieces | Pass |  |
| **SE-F-034** | Check that all legal moves are displayed when a Knight is selected | Pass |  |
| **SE-F-035** | Check a Knight can move in L-shape | Pass |  |
| **SE-F-036** | Check a Knight can take a piece with L-shape movement | Pass |  |
| **SE-F-037** | Check that all legal moves are displayed when a Bishop is selected | Pass |  |
| **SE-F-038** | Check a Bishop can move diagonally | Pass |  |
| **SE-F-039** | Check a Bishop can take a piece diagonally | Pass |  |
| **SE-F-040** | Check that all legal moves are displayed when a Queen is selected | Pass |  |
| **SE-F-041** | Check a Queen can move diagonally and orthogonally | Pass |  |
| **SE-F-042** | Check a Queen can take a piece diagonally and orthogonally | Pass |  |
| **SE-F-043** | Check that all legal moves are displayed when a King is selected | Pass |  |
| **SE-F-044** | Check a King can move 1 square diagonally or orthogonally | Pass |  |
| **SE-F-045** | Check a King can take a piece by moving 1 square diagonally | Pass |  |
| **SE-F-046** | Check left side castling rule is implemented correctly | Fail | King is unable to castle |
| **SE-F-047** | Check right side castling rule is implemented correctly | Fail |  |
| **SE-F-048** | Check pieces can’t move off the board | Pass |  |
| **SE-F-049** | Check that check is correctly detected for the Black King | Fail | No red highlight is seen around the king in order to indicate check |
| **SE-F-050** | Check that check is correctly detected for the White King | Fail | No red highlight is seen around the king in order to indicate check |
| **SE-F-051** | Check that the game detects when the White King is in checkmate | Fail | The game does not detect when checkmate has occurred and continues on. |
| **SE-F-052** | Check that the game detects when the Black King is in checkmate | Fail | The game does not detect when checkmate has occurred and continues on. |
| **SE-F-053** | Check the name of the winning User is displayed in the 'Game Over' screen | Fail | Test Case Blocked by SE-F-051/52 |
| **SE-F-054** | Check the Main Menu button appears in the "Game Over" screen | Fail | Test Case Blocked by SE-F-051/52 |
| **SE-F-055** | Check that the game ends when White chooses to resign | Fail | User is required to select "Accept/Decline" in order to resign. |
| **SE-F-056** | The game ends when Black chooses to resign | Fail | User is required to select "Accept/Decline" in order to resign. |
| **SE-F-057** | White can call a draw and Black can accept | Pass |  |
| **SE-F-058** | Black can call a draw and White can accept | Pass |  |
| **SE-F-059** | White can call a draw and Black can decline | Pass |  |
| **SE-F-060** | Black can call a draw and White can decline | Pass |  |
| **SE-F-061** | White Player can choose to quit the game at any time | Pass |  |
| **SE-F-062** | Black Player can choose to quit the game at any time | Pass |  |
| **SE-F-063** | Can the White Player exit the pause menu | Pass |  |
| **SE-F-064** | Can the Black Player exit the pause menu | Pass |  |
| **SE-F-065** | Are all saved games shown | Pass |  |
| **SE-F-066** | Can the User select a game to load | Fail | Games do not save and thus cannot be loaded |
| **SE-F-067** | Are all the pieces in the correct positions |  | Games do not save and thus cannot be loaded |
| **SE-F-068** | Are all the pieces that were removed from the board still removed |  | Games do not save and thus cannot be loaded |
| **SE-F-069** | Does the game load show the king is in check. |  | Games do not save and thus cannot be loaded |
| **SE-F-070** | Does the game load the correct Usernames assigned to the correct colours |  | Games do not save and thus cannot be loaded |
| **SE-F-071** | Can the White Player choose to move forwards and backwards through the game on their turn | Fail | Games do not save and thus cannot be loaded |
| **SE-F-072** | Can the Black Player choose to move forwards and backwards through the game on their turn | Fail | Games do not save and thus cannot be loaded |
| **SE-F-073** | The game is saved in its entirety when a User chooses to quit | Fail | Games do not save. |
| **SE-F-074** | The game is saved and does not overwrite another saved game | Fail | Games do not save. |
| **SE-F-075** | Check if the program is closed during a game, was the last move saved | Fail | Games do not save |
| **SE-F-076** | Check to see if program responds correctly when the user attempts to load a save file with the wrong extension | Fail | No message appears. Application remains static |
| **SE-F-077** | Check to see if program responds correctly when the user attempts to load a save file in an incorrect format | Fail | No message appears. Application remains static |
| **SE-P-001** | Check the response of the program to user input (Should take under a second) | Pass |  |
| **SE-P-002** | Check if the program works on Information Services PC’s | Pass |  |
| **SE-E-003** | Check the appearance of the interface resembles Microsoft Windows standards. | Pass |  |

## Regression Tests Iteration 2

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Ref** | **Test Content** | **Result** | **Explanation** |
| **SE-F-001** | Check that the menu prompts are displayed upon starting the application | Pass |  |
| **SE-F-002** | Check that the "New Game" prompt can be selected | Pass |  |
| **SE-F-003** | Check that the escape key returns the user to the previous screen | Pass |  |
| **SE-F-004** | Check the new game setup allows Username entries | Paas |  |
| **SE-F-005** | Check the new game setup does not allow an empty name entry | Pass |  |
| **SE-F-006** | Check that the “New Game” setup does not allow username with invalid characters (new lines characters, special characters) | Pass |  |
| **SE-F-007** | Check that the program responds correctly to a name which exceeds the character limit of 20 | Pass |  |
| **SE-F-008** | Check that the "Submit" prompt can be selected | Pass |  |
| **SE-F-009** | Check that the "Load Game" prompt can be selected if a save file is available | Fail | User is unable to select "Load Old Game" button on main menu |
| **SE-F-010** | Check that the "Load Game" prompt cannot be selected if no save files are available | Fail | The user is not prompted that there are no files available |
| **SE-F-011** | Check that the "Quit" prompt can be selected without issue | Pass |  |
| **SE-F-012** | Check that the username entries are saved to the file | Pass |  |
| **SE-F-013** | Check that the User colour is kept track of in save file | Pass |  |
| **SE-F-014** | Check that the Users pieces are kept track of (initial state) | Fail | Test Case Blocked by SE-F-009 |
| **SE-F-015** | Check the Users pieces are kept track of after a piece is taken | Fail | Test Case Blocked by SE-F-009 |
| **SE-F-016** | Check the initial position of the pieces is correct | Fail | Test Case Blocked by SE-F-009 |
| **SE-F-017** | Check that White moves first | Pass |  |
| **SE-F-018** | Check that the program indicates whose turn it is | Pass |  |
| **SE-F-019** | Check that the pieces are presented in an unambiguous way | Pass |  |
| **SE-F-020** | Check that only the current User's pieces can be selected | Pass |  |
| **SE-F-021** | Check that the User can select different pieces during their turn | Pass |  |
| **SE-F-022** | Check that the pieces change appearance when selected | Pass |  |
| **SE-F-023** | Check the program responds correctly when the user during piece selection clicks outside the board. | Pass |  |
| **SE-F-024** | Check the User can’t select a piece after they’ve moved another piece that turn. | Pass |  |
| **SE-F-025** | Check to see if the program responds when the user tries to move their own piece onto a friendly piece | Pass |  |
| **SE-F-026** | Check that all the legal moves are displayed when a Pawn is selected | Pass |  |
| **SE-F-027** | Check the Pawn can only move 1 or 2 spaces for its first move | Pass |  |
| **SE-F-028** | Check the Pawn can only move 1 space for every move that is not its first | Pass |  |
| **SE-F-029** | Check that a Pawn can take a piece diagonally forward | Pass |  |
| **SE-F-030** | Check that a Pawn can perform en passant to take a piece | Pass |  |
| **SE-F-031** | Check that all legal moves are displayed when a Rook is selected | Pass |  |
| **SE-F-032** | Check that a Rook can move Orthogonally | Pass |  |
| **SE-F-033** | Check that a Rook can move Orthogonally to take pieces | Pass |  |
| **SE-F-034** | Check that all legal moves are displayed when a Knight is selected | Pass |  |
| **SE-F-035** | Check a Knight can move in L-shape | Pass |  |
| **SE-F-036** | Check a Knight can take a piece with L-shape movement | Pass |  |
| **SE-F-037** | Check that all legal moves are displayed when a Bishop is selected | Pass |  |
| **SE-F-038** | Check a Bishop can move diagonally | Pass |  |
| **SE-F-039** | Check a Bishop can take a piece diagonally | Pass |  |
| **SE-F-040** | Check that all legal moves are displayed when a Queen is selected | Pass |  |
| **SE-F-041** | Check a Queen can move diagonally and orthogonally | Pass |  |
| **SE-F-042** | Check a Queen can take a piece diagonally and orthogonally | Pass |  |
| **SE-F-043** | Check that all legal moves are displayed when a King is selected | Pass |  |
| **SE-F-044** | Check a King can move 1 square diagonally or orthogonally | Pass |  |
| **SE-F-045** | Check a King can take a piece by moving 1 square diagonally | Pass |  |
| **SE-F-046** | Check left side castling rule is implemented correctly | Fail | King is unable to castle |
| **SE-F-047** | Check right side castling rule is implemented correctly | Fail | King is unable to castle |
| **SE-F-048** | Check pieces can’t move off the board | Pass |  |
| **SE-F-049** | Check that check is correctly detected for the Black King | Pass |  |
| **SE-F-050** | Check that check is correctly detected for the White King | Pass |  |
| **SE-F-051** | Check that the game detects when the White King is in checkmate | Pass |  |
| **SE-F-052** | Check that the game detects when the Black King is in checkmate | Pass |  |
| **SE-F-053** | Check the name of the winning User is displayed in the 'Game Over' screen | Pass |  |
| **SE-F-054** | Check the Main Menu button appears in the "Game Over" screen | Pass |  |
| **SE-F-055** | Check that the game ends when White chooses to resign | Pass |  |
| **SE-F-056** | The game ends when Black chooses to resign | Pass |  |
| **SE-F-057** | White can call a draw and Black can accept | Pass |  |
| **SE-F-058** | Black can call a draw and White can accept | Pass |  |
| **SE-F-059** | White can call a draw and Black can decline | Pass |  |
| **SE-F-060** | Black can call a draw and White can decline | Pass |  |
| **SE-F-061** | White Player can choose to quit the game at any time | Pass |  |
| **SE-F-062** | Black Player can choose to quit the game at any time | Pass |  |
| **SE-F-063** | Can the White Player exit the pause menu | Pass |  |
| **SE-F-064** | Can the Black Player exit the pause menu | Pass |  |
| **SE-F-065** | Are all saved games shown | Fail | Test Case Blocked by SE-F-009 |
| **SE-F-066** | Can the User select a game to load | Fail | Test Case Blocked by SE-F-009 |
| **SE-F-067** | Are all the pieces in the correct positions | Fail | Test Case Blocked by SE-F-009 |
| **SE-F-068** | Are all the pieces that were removed from the board still removed | Fail | Test Case Blocked by SE-F-009 |
| **SE-F-069** | Does the game load show the king is in check. | Fail | Test Case Blocked by SE-F-009 |
| **SE-F-070** | Does the game load the correct Usernames assigned to the correct colours | Fail | Test Case Blocked by SE-F-009 |
| **SE-F-071** | Can the White Player choose to move forwards and backwards through the game on their turn | Fail | Test Case Blocked by SE-F-009 |
| **SE-F-072** | Can the Black Player choose to move forwards and backwards through the game on their turn | Fail | Test Case Blocked by SE-F-009 |
| **SE-F-073** | The game is saved in its entirety when a User chooses to quit | Pass |  |
| **SE-F-074** | The game is saved and does not overwrite another saved game | Fail | The application can overwrite a previously saved game if the names and date of player are the same |
| **SE-F-075** | Check if the program is closed during a game, was the last move saved | Fail | The application does not save the game |
| **SE-F-076** | Check to see if program responds correctly when the user attempts to load a save file with the wrong extension | Fail | Test Case Blocked by SE-F-009 |
| **SE-F-077** | Check to see if program responds correctly when the user attempts to load a save file in an incorrect format | Fail | Test Case Blocked by SE-F-009 |
| **SE-P-001** | Check the response of the program to user input (Should take under a second) | Pass |  |
| **SE-P-002** | Check if the program works on Information Services PC’s | Pass |  |
| **SE-E-003** | Check the appearance of the interface resembles Microsoft Windows standards. | Pass |  |

## Regression Tests Iteration 3

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Ref** | **Test Content** | **Result** | **Explanation** |
| **SE-F-001** | Check that the menu prompts are displayed upon starting the application | Pass |  |
| **SE-F-002** | Check that the "New Game" prompt can be selected | Pass |  |
| **SE-F-003** | Check that the escape key returns the user to the previous screen | Pass |  |
| **SE-F-004** | Check the new game setup allows Username entries | Paas |  |
| **SE-F-005** | Check the new game setup does not allow an empty name entry | Pass |  |
| **SE-F-006** | Check that the “New Game” setup does not allow username with invalid characters (new lines characters, special characters) | Pass |  |
| **SE-F-007** | Check that the program responds correctly to a name which exceeds the character limit of 20 | Pass |  |
| **SE-F-008** | Check that the "Submit" prompt can be selected | Pass |  |
| **SE-F-009** | Check that the "Load Game" prompt can be selected if a save file is available | Pass |  |
| **SE-F-010** | Check that the "Load Game" prompt cannot be selected if no save files are available | Fail | The User is able to select “Load Old Game” when there are no files available and its displays the empty file explorer |
| **SE-F-011** | Check that the "Quit" prompt can be selected without issue | Pass |  |
| **SE-F-012** | Check that the username entries are saved to the file | Pass |  |
| **SE-F-013** | Check that the User colour is kept track of in save file | Pass |  |
| **SE-F-014** | Check that the Users pieces are kept track of (initial state) | Pass |  |
| **SE-F-015** | Check the Users pieces are kept track of after a piece is taken | Pass |  |
| **SE-F-016** | Check the initial position of the pieces is correct | Pass |  |
| **SE-F-017** | Check that White moves first | Pass |  |
| **SE-F-018** | Check that the program indicates whose turn it is | Pass |  |
| **SE-F-019** | Check that the pieces are presented in an unambiguous way | Pass |  |
| **SE-F-020** | Check that only the current User's pieces can be selected | Pass |  |
| **SE-F-021** | Check that the User can select different pieces during their turn | Pass |  |
| **SE-F-022** | Check that the pieces change appearance when selected | Pass |  |
| **SE-F-023** | Check the program responds correctly when the user during piece selection clicks outside the board. | Pass |  |
| **SE-F-024** | Check the User can’t select a piece after they’ve moved another piece that turn. | Pass |  |
| **SE-F-025** | Check to see if the program responds when the user tries to move their own piece onto a friendly piece | Pass |  |
| **SE-F-026** | Check that all the legal moves are displayed when a Pawn is selected | Pass |  |
| **SE-F-027** | Check the Pawn can only move 1 or 2 spaces for its first move | Pass |  |
| **SE-F-028** | Check the Pawn can only move 1 space for every move that is not its first | Pass |  |
| **SE-F-029** | Check that a Pawn can take a piece diagonally forward | Pass |  |
| **SE-F-030** | Check that a Pawn can perform en passant to take a piece | Pass |  |
| **SE-F-031** | Check that all legal moves are displayed when a Rook is selected | Pass |  |
| **SE-F-032** | Check that a Rook can move Orthogonally | Pass |  |
| **SE-F-033** | Check that a Rook can move Orthogonally to take pieces | Pass |  |
| **SE-F-034** | Check that all legal moves are displayed when a Knight is selected | Pass |  |
| **SE-F-035** | Check a Knight can move in L-shape | Pass |  |
| **SE-F-036** | Check a Knight can take a piece with L-shape movement | Pass |  |
| **SE-F-037** | Check that all legal moves are displayed when a Bishop is selected | Pass |  |
| **SE-F-038** | Check a Bishop can move diagonally | Pass |  |
| **SE-F-039** | Check a Bishop can take a piece diagonally | Pass |  |
| **SE-F-040** | Check that all legal moves are displayed when a Queen is selected | Pass |  |
| **SE-F-041** | Check a Queen can move diagonally and orthogonally | Pass |  |
| **SE-F-042** | Check a Queen can take a piece diagonally and orthogonally | Pass |  |
| **SE-F-043** | Check that all legal moves are displayed when a King is selected | Pass |  |
| **SE-F-044** | Check a King can move 1 square diagonally or orthogonally | Pass |  |
| **SE-F-045** | Check a King can take a piece by moving 1 square diagonally | Pass |  |
| **SE-F-046** | Check left side castling rule is implemented correctly | Fail | King is unable to castle |
| **SE-F-047** | Check right side castling rule is implemented correctly | Fail | King is unable to castle |
| **SE-F-048** | Check pieces can’t move off the board | Pass |  |
| **SE-F-049** | Check that check is correctly detected for the Black King | Pass |  |
| **SE-F-050** | Check that check is correctly detected for the White King | Pass |  |
| **SE-F-051** | Check that the game detects when the White King is in checkmate | Pass |  |
| **SE-F-052** | Check that the game detects when the Black King is in checkmate | Pass |  |
| **SE-F-053** | Check the name of the winning User is displayed in the 'Game Over' screen | Pass |  |
| **SE-F-054** | Check the Main Menu button appears in the "Game Over" screen | Pass |  |
| **SE-F-055** | Check that the game ends when White chooses to resign | Pass |  |
| **SE-F-056** | The game ends when Black chooses to resign | Pass |  |
| **SE-F-057** | White can call a draw and Black can accept | Pass |  |
| **SE-F-058** | Black can call a draw and White can accept | Pass |  |
| **SE-F-059** | White can call a draw and Black can decline | Pass |  |
| **SE-F-060** | Black can call a draw and White can decline | Pass |  |
| **SE-F-061** | White Player can choose to quit the game at any time | Pass |  |
| **SE-F-062** | Black Player can choose to quit the game at any time | Pass |  |
| **SE-F-063** | Can the White Player exit the pause menu | Pass |  |
| **SE-F-064** | Can the Black Player exit the pause menu | Pass |  |
| **SE-F-065** | Are all saved games shown | Pass |  |
| **SE-F-066** | Can the User select a game to load | Pass |  |
| **SE-F-067** | Are all the pieces in the correct positions | Fail | Board is always set to replay mode and does not load part through games |
| **SE-F-068** | Are all the pieces that were removed from the board still removed | Fail | Board is always set to replay mode and does not load part through games |
| **SE-F-069** | Does the game load show the king is in check. | Fail | No Red Highlight for king in check. |
| **SE-F-070** | Does the game load the correct Usernames assigned to the correct colours | Fail | Names are not updated on the board and display “Player 1” and “Player 2” |
| **SE-F-071** | Can the White Player choose to move forwards and backwards through the game on their turn | Pass |  |
| **SE-F-072** | Can the Black Player choose to move forwards and backwards through the game on their turn | Pass |  |
| **SE-F-073** | The game is saved in its entirety when a User chooses to quit | Pass |  |
| **SE-F-074** | The game is saved and does not overwrite another saved game | Fail | The application can overwrite a previously saved game if the names and date of player are the same |
| **SE-F-075** | Check if the program is closed during a game, was the last move saved | Fail | The application does not save the game |
| **SE-F-076** | Check to see if program responds correctly when the user attempts to load a save file with the wrong extension | Fail | No error message appears and nothing further happens |
| **SE-F-077** | Check to see if program responds correctly when the user attempts to load a save file in an incorrect format | Fail | No error message appears and nothing further happens |
| **SE-P-001** | Check the response of the program to user input (Should take under a second) | Pass |  |
| **SE-P-002** | Check if the program works on Information Services PC’s | Pass |  |
| **SE-E-003** | Check the appearance of the interface resembles Microsoft Windows standards. | Pass |  |

REFERENCES

[1] Cooper. G, Foy. K, Baker. D, Enache. A, “Software Engineering Group 17 Test Specification”, 1.6, SE\_GP17\_UISpecification, 24th April 2023

DOCUMENT HISTORY

| *Version* | *Issue No.* | *Date* | *Changes made to document* | *Changed by* |
| --- | --- | --- | --- | --- |
| 0.1 | N/A | 28/04/23 | N/A – New Document | DUB4 |
| 0.2 | N/A | 03/05/23 | Completed Iteration 1 | DUB4 |
| 0.3 | N/A | 04/05/23 | Completed Iteration 2 | DUB4 |
| 0.4 | N/A | 05/05/23 | Completed Iteration 3 | DUB4 |