Software Engineering GP02 Project

Testing Specification

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# Introduction

This document specifies testing information including system tests that the program will be tested against.

## Purpose of this Document

The purpose of this document is to ensure the program is robust and to detect bugs in the program that can be addressed and fixed. This document will also contain test reports.

## Scope

This document should be read by the system programmers and testers.

## Objectives

The objective of this document is to keep a record of system tests. This includes: test content, input, output and pass criteria, as well as reports on the tests that have been done.

# TEST SPECIFICATIONS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Ref | Req being tested | Test Content | Input | Output | Pass Criteria |
| SE-F-001 | FR1 | Check that when the program starts the players are prompted to start a new game or restore a previous game | None | A prompt for what the user wants to do should be displayed | The game opens and prompts the user |
| SE-F-002 | FR1 | Check that pressing ‘start a new game’ functions properly | Press start new game | Further prompts for information should be displayed | The game prompts the users for their names and who is playing the white/black pieces |
| SE-F-003 | FR1 | Check that pressing restore previous game functions properly | Press restore previous game | Further prompts for information should be displayed | The players should be prompted to specify a saved game |
| SE-F-004 | FR1 | Check that when prompted for user names, Giving a blank value is rejected | No value for first user prompt. Then rerun the test for the second user prompt | Error message warns of blank value, re-send name prompt | The value should be rejected and the code to prompt and assign the user name should re-run. |
| SE-F-005 | FR1 | Check that when a player selects a colour, they are assigned that colour, and the remaining colour assigned to the remaining player. This should be tested for both colours | Click black, then rerun the test and click white | *TBD based on future design* | The user should be assigned the colour they picked, and the remaining user should be assigned the remaining colour |
| SE-F-006 | FR1 | Check that system  can store the first  two days of the  earliest permitted  year | Enter 1st March  1971 at date prompt.  Hit return and enter  2nd March 1971 at  date prompt. | List of stored  dates should  now include  those dates. | Data is stored  correctly |
| SE-F-007 | FR1 | Check that system  can store the last  two days of the latest permitted  year | Enter 30th  December 2072 at  date prompt. Hit return and enter 31st  December 2072 at  date prompt. | List of stored  dates should now include  those dates | Data is stored  correctly |
| SE-F-008 | FR1 | Dates too early are  rejected | Enter 1st January  1971. | Error message  warns of date  too early. List of  stored dates  should not have  been changed. | System  displays  "wrong date"  error  message. |
| SE-F-009 | FR2 | The program will keep track of each player’s name and colour | Input ‘user\_black’ for one user, and ‘user\_white’ for the other.  Click black for user\_black | ‘user\_black’ displayed with the black pieces. User\_white displayed with  the white pieces | The program displays the names on the correct sides of the board. |
| SE-F-010 | FR2 | Check that a piece is removed when it is taken by another piece | Take a white piece with a black piece. Take a black piece with a white piece | None | The white piece is removed when taken by a black piece. The black piece is removed when taken by a white piece. |
| SE-F-011 | FR2 | Check that the position of a piece is updated when it moves | Start with pieces in  starting positions. Move white pawn from D2 to D3.  Move black pawn from A7 to A6. Move white king from D1 to D2 | A display of the board in starting position, except A7 and D1 are empty. A black pawn in A6. A white pawn in D3. White king in D2. | The pieces are displayed in their new positions |
| SE-F-012 | FR3 | Check that the board is displayed correctly and cannot be moved or deleted | Try clicking, dragging the board | The board should display and not be moved | The board should display and not be moved |
| SE-F-013 | FR3 | Check that the pieces on the board are displayed, and any pieces that are out of play are not | A test scenario with some pieces missing, and the pieces distributed across the board, with some pieces at the edge of the board | The program should display the board and the pieces in the correct position | The program should display the board and the pieces in the correct position |
| SE-F-014 | FR4 | Check that during white turn only white pieces can be selected | Select any white piece during white’s turn | The program displays hints | The piece will be selected and the program will display hints |
| SE-F-015 | FR4 | Check that during black turn only black pieces can be selected | Select any black piece during black’s turn | The program displays hints | The piece will be selected and the program will display hints |
| SE-F-016 | FR4 | Check that when it is white’s turn a white piece can be selected, then another white piece can be selected so long as the first piece is not moved | Select any white piece, then, without moving it, select another white piece | The program displays hints | The program displays hints for the first piece, then when the second piece is clicked the hints disappear, and hints for the second piece are displayed |
| SE-F-017 | FR4 | Check that when it is black’s turn a black piece can be selected, then another black piece can be selected so long as the first piece is not moved | Select any black piece, then, without moving it, select another black piece | The program displays hints | The program displays hints for the first piece, then when the second piece is clicked the hints disappear, and hints for the second piece are displayed |
| SE-F-018 | FR5 | Check the pawn can move one vacant place on its first move | Start a fresh game. Select a pawn and move it one vacant place |  | The pawns is moved |
|  | FR5 | Check the pawn can move two vacant places on its first move | Start a fresh game. Select a pawn and move it two vacant places |  | The pawn is moved |

REFERENCES

[1] Software Engineering Group Projects: General Documentation Standards. C.W. Loftus. SE.QA.03. 2.5 Release

DOCUMENT HISTORY

| *Version* | *Issue No.* | *Date* | *Changes made to document* | *Changed by* |
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