

Software Engineering Group Project - Test Examples

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1. INTRODUCTION

1.1 Purpose of this Document

This document provides test scenarios and examples of test cases that could be used for a test specification

1.2 Scope

This document covers example test cases which cover requirements specifications [1]

1.3 Objectives

The objective of this document is to provide test scenarios and some example test cases for the Chess Tutor.

2. FUNCTIONAL REQUIREMENTS

2.1 FR1 Player Setup

- Test that the setup prompts appear and work.
- Test that name entries can be input by the user.
- Test that colour choices can be input by the user.

2.2 FR2 Player Management

- Test that name entries are kept track of.
- Test that piece positions are kept track of.

2.3 FR3 Board Management

- Test that the current player is kept track of.
- Test that the board state is represented correctly.

2.4 FR4 Piece Selection

- Test that only the current player to select one of their pieces.
- Test that the current player can select different pieces during their turn.

2.5 FR5 Movement

- Test that only the current player can make legal moves.

- Test that all legal moves are displayed when a piece is selected.
- Test that all legal moves match the rules of chess.

2.6 FR6 Detecting “Check”

- Test that check is detected correctly.
- Test that check is represented visually.

2.7 FR7 Detecting “Checkmate”

- Test that checkmate is detected correctly.
- Test that checkmate is represented visually.

2.8 FR8 End of Game

- Test that the game ends once checkmate has been detected.
- Test that the game ends when an opponent resigns.
- Test that the game ends when both players agree on a draw.
- Test that the played game can be saved in its entirety.

2.9 FR9 Quitting the Game

- Test that players can quit the game at any time.
- Test that the game can be saved in its entirety before quitting.

2.10 FR10 Replay the Game

- Test that players can select a saved game and replay it.
- Test that players can move backwards/forwards whilst replaying a saved game.

2.11 FR11 Storing and Restoring Game State

- Test that the current game state is saved automatically during play.
- Test that a game can be restored to a previous saved state if the application is closed/saved.

3. EXTERNAL INTERFACE REQUIREMENTS

3.1 EIR1 Appearance of Interface

- Test that the interface matches Microsoft Windows standards for the appearance of Scroll bars, buttons, menus, etc.

4. PERFORMANCE REQUIREMENTS

4.1 PR1 Response of Program to User Input

- Test that any user input is represented on the screen within 1 second.

4.2 PR2 Target Computer for System

- Test that all software runs on IS PCs or PC maintained by the faculty

5. EXAMPLE TEST CASES

Test Reference	Requirement	Test Content	Input	Output	Pass Criteria
SE-F-001	FR1	Setup prompts appear and work correctly	Launch “Chess Tutor” application	“New Game” and “Load Game” are displayed	Startup prompts are displayed without issue
SE-F-002	FR1	Setup prompts appear and work correctly	Select “New Game”	Setup for a new game is displayed	User can select the “New Game” prompt without issue
SE-F-003	FR1	Setup prompts appear and work correctly	Select “Load Game” with a save available	User is prompted to select a game to load	User can select “Load Game” without issue
SE-F-004	FR1	Setup prompts appear and work correctly	Select “Load Game” with no saves available	Error messages is displayed informing no saves are available	User cannot select “Load Game” due to no saves
...					
SE-P-001	PR1	Test that any user input is represented on the screen within 1 second	Run the “Chess Tutor” application for 30 mins	Application runs as intended	All input is represented on the screen within 1 second
SE-P-002	PR2	Test that all software runs on IS PCs or PC maintained by the faculty.	Run the “Chess Tutor” application for 30 mins on an IS PC or a PC maintained by the faculty	Application runs as intended	The application runs as intended on the PC
Etc...					

Figure 1: Snippet of an Example Test Specification

REFERENCES

- [1] Software Engineering Group Projects: Chess Tutor Requirements Specification. C.W. Loftus. SE.QA.RS 1.1 Release

DOCUMENT HISTORY

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