Software Design

Description

for

ChessMate

Version 1.0 approved

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The Flame Army

3/8/18

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|  | * 1. Purpose   To create a guild and direction of instruction of coding the Classes and Function of the game “Chessmate” |
|  | 1.2 Revisions |
|  | Version Primary Author(s) Description of Version Date Completed |
|  | Draft Type and Number Full Name Information about the revision. This table does not need to be filled in whenever a document is touched, only when the ver-sion is being upgraded. 00/00/00 |
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|  | <This template serves as a basis for a Software Design Specification. As in the SRS document, all italics refer to the "comment" style. Comments in blue are general and apply to any SDS, these that are in black are applicable specifically for this course. This template is based on the work by Karl. E Wiegers, Steve McConnel of CXOne group and the IEEE standards.> |
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|  | 1.3 Introduction |
|  | Purpose : This Document specifies the the high level design for "FLAME CHESS", this Software Design Document follows the SRS as |
|  | closeley as possible. People need sometimes need a reliable offline working entretainment software to blow some steam. |
|  | System Overview |
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|  | System sturcture : |
|  | Functionality : - Move Chess pieces (moving pattern of each type of chess) |
|  | - Special Move (Castling . etc) |
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|  | Interactions : |
|  | with external system - with mouse:- drag and place chess pieces |
|  | - click tab (surrender, check scoreboard, Undo) |
|  | - click timer |
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|  | - with keyboard: - enter user name |
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|  | - with monitor : - display the game include text notification, scoreboard, Win/Lose |
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|  | Sysyem Issues : - (anything goes wrong?) |
|  | eg - the mouse does not interact with the object |
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|  | Definitions, : - ................. |
|  | Acronyms |
|  | and Abbreviations |
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|  | Supporting Materials : - Minimax AI for oppenent |
|  | - Wikipedia for the standard rule of chess |
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|  | Document Overview : |
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|  | 2 Architecture |
|  | <The architecture provides the top level design view of a system and provides a basis for more detailed design work. This is the section where you should include your High-Level design Com-ponent Diagram. |
|  | 2.1 Overview |
|  |  |
|  | <This section provides a high level overview of the structural and functional decomposition of the system. Focus on how and why the system was decomposed in a particular way rather than on details of the particular components. Include information on the major responsibilities and roles that the system (or portions of it) must play. |
|  | 2.2 Component 1..n |
|  | <Describe an element (subsystem, component, etc...) from architecture in further detail. When appropriate, include information on how the element is further broken down and the interactions and relationships between these subcomponents. |
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|  | \*. Piece : this component allow User to use all chess pieces with the correct label |
|  | and logic(rule) to perfrom the task that fit the standard chess game |
|  | this component include the following element with logic desgin :(Label in Black, white) |
|  | King :logic of moving pattern |
|  | Queen :logic of moving pattern |
|  | Bishop :logic of moving pattern |
|  | Knight :logic of moving pattern |
|  | Rock :logic of moving pattern |
|  | Pawn :logic of moving pattern |
|  | logic of checking the condition of getting promotion |
|  | logic of promoing the pawn which satisfy the condition    Define chess class |
|  | Interaction Chess class |
|  | \*. Chess Board : this component allow all chess pieces display in standard chess game layout; |
|  | Also, this componet allow all chess pieces moved on the designed area and prevent certain bug |
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|  | \*. Button: this component include multiple of components which are interactive button serve by certain function for different use |
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|  | \*. Save Game : this component allow User to |
|  | \*. Timer: this component allows User to use the timer feature by clicking the timer button under speed competition |
|  | \*. Class Manager: this component regulates the special condition of certain move such as promo, castling (is this included?) |
|  | \*. Scoreboard: this component allow user to see the number of game that user win |
|  | \*. Undo: this component allow user to reverse a step. the game will display the previous record (Grammar TT) |
|  | \*. Surrender: this component allows User to stop the game with a "surrender" message displayed. |
|  | \*. Restart: this component allows User to get a option to interact with the restart button |
|  | \*. SavedGame: this component allows User to Save the current status (pieces position and score) |
|  | and Load it again by User' wish |
|  | \*. MoveNotation: this component allows User to check the move record of current/ specific game 9??) |
|  | \*. etc. |
|  |  |
|  | \*. Mouse click: this component allow User to interact with Chess pieces by (click and drag) to play the game with hardware (mouse). |
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|  | \*. Move: this component associate with chess and mouse click, when a mouse click on a mouse and place it to the right place, |
|  | the piece will "move" to that specific place on board. |
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|  | \*. Check/Checkmate: this component allow User to get notice about certain status of the game (by display a message?) |
|  | the condition of Check, when "King" is about to be taken |
|  | the condition of Checkmate, when "King" is about to be taken while the play have zero option to defend the king. |
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|  | \*. pieces taken: this component allow `Chessmate` to display the result when certain pieces get taken off. |
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|  | P.S. (How to check the condition of check?) |
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|  | 3 High-Level Design |
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|  | <This section describes in further detail elements discussed in the Architecture. Normally this section would be split into separate documents for different areas of the design. |
|  | High-level designs are most effective if they attempt to model groups of system elements from a number of different views. |
|  | 3.1 View / Model Component 1.n |
|  | <Provide a description and diagrams of a system component or set of components that de-scribes a clearly defined view or model of the entire system or a subset of the system. |