Board Game Checkers

Goal to Achieve: A high quality graphical user interface Checker Game.

1) Two humans can play against each other.

2) Computer will decide the valid move.

3) Computer detect and declare the winner.

Specifications:

The final product should include as a minimal the following:

1) Two human players will play with **12 coloured** (One set (Black) and One set (White)).

2) Game will be displayed on screen.

3) It should be possible to save intermediate state of the game and resume the game from this saved state.

4) Black Start and then alternate moves.

5) **Correct** moves are showed by **green** colour.

6) When captured it removes the piece, if one or more available then it's choice upon the player to which he want to remove.

7) When a piece reaches the furthest, it is **crowned as king** (4 Diagonal Move).

8) A player wins the game when the opponent cannot make a move.

9) Who is **turn** pop-up.

10) Final version of **game networked**, meaning that two people can play it online.

Description:

Overview

Game checkers provides certain facilities (functionalities) to the user, to solve the user requirements (1 player, 2 players).

Product Perspective

In the project of checkers, the product perspective is to provide complete interface where user can play single player and multiplayer game in web-baesed Enviromint. GUI will be provided to facilitate this purpose.

Product Functions

Single-player and Multi-player option:

The main function of checkers is to provide an interface where user will be able to choose their desired game and play according to their requirements. Auto player option will also be also given where computer will play on one side.

User Characteristics

Special features will be provided to the user to fulfil the requirements of the user. There are three different characteristics that will be completed at the end of this project.

Goals for using system

The goal for using this system is just to get entertained by this game in the new environment of android.

Potentials patterns of use

Regarding game of checkers, some users just play a game just for entertainment while other users might play a game occasionally. This game will facilitate all types of users whether they play just for entertainment or play on regular basis.

Possible Extensions:

1) Implement multiple variations of ‘Checkers’

as defined on the Wikipedia page.

Allow players to select variation at the start of play.

2) Network Checkers.

Two players will play over local networks

a ‘client/server’ architecture will be needed.

3) Colore change for checker available.

4) Pop-Out name, for whose turn.

5) Multiple Game Option.

Software Requirements:

Git - Version control with this project.

Final version of the game, code use **python** doc.

Software development techniques- Schaeffer programmed heuristics ("rules of thumb") into a computer software program that captured knowledge of successful and unsuccessful checkers moves.

Programming language used in **Python and C++**.

Visual Studio IDE

Microsoft Word: Well documented code.

Software Testing Black Box Testing, **TestBird**.

To meet the specifications as stated above in a timely manner, I have developed three deliverables.

Day 1-3

1) Produce an 8x8 checkerboard and dark **colored sqaures**.

2) Provide **12 light and 12 dark checkers**. The checker should be centred on the dark squared of the checkboard.

Day 3-6

1) Implement anti-aliasing to smooth the edges of the checkers and/or the squares.

2) Check for rules followed, check for popups.

Day 4-9

1) Work on GUI

2) Add network playing to the checker game. This requires sockets.

3) Bug testing

4) Software testing.

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Day 10

1) **Testing and dockin**g.