CS154
COURSE PROJECT

PROJECT TITLE :-   CONNECT FOUR GAME

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A BRIEF DESCRIPTION :-

Connect Four (also known as Four Up, Plot Four, Find Four, Four in a Row, and Four in a Line) is a two-player game in which the players first choose a colour and then take turns dropping their coloured discs from the top into a seven-column, six-row vertically-suspended grid. The pieces fall straight down, occupying the next available space within the column.

The object of the game is to connect four of one's own discs of the same colour next to each other vertically, horizontally, or diagonally before one's opponent can do so.
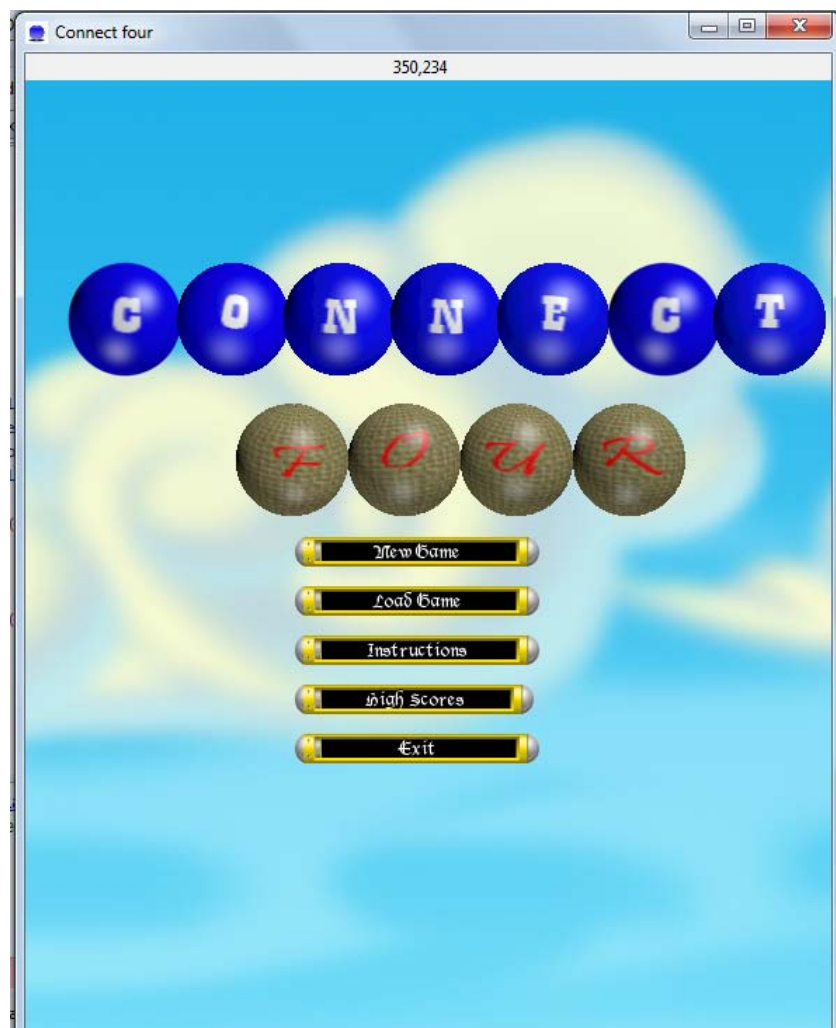
Some of the features of the project are :-

- SCORES- Scores are also calculated based on the number of steps involved in winning the game.
  Then high-scores are stored in a file name "text.txt".

- SINGLE-PLAYER, DOUBLE-PLAYER- Here the user has an option to play with both the computer (AI is involved) or with another human opponent.

- SAVE GAME- This feature allows the user to save and quit the game while playing if he wants.

- GRAPHICS- We have also attempted to make the screen look attractive.
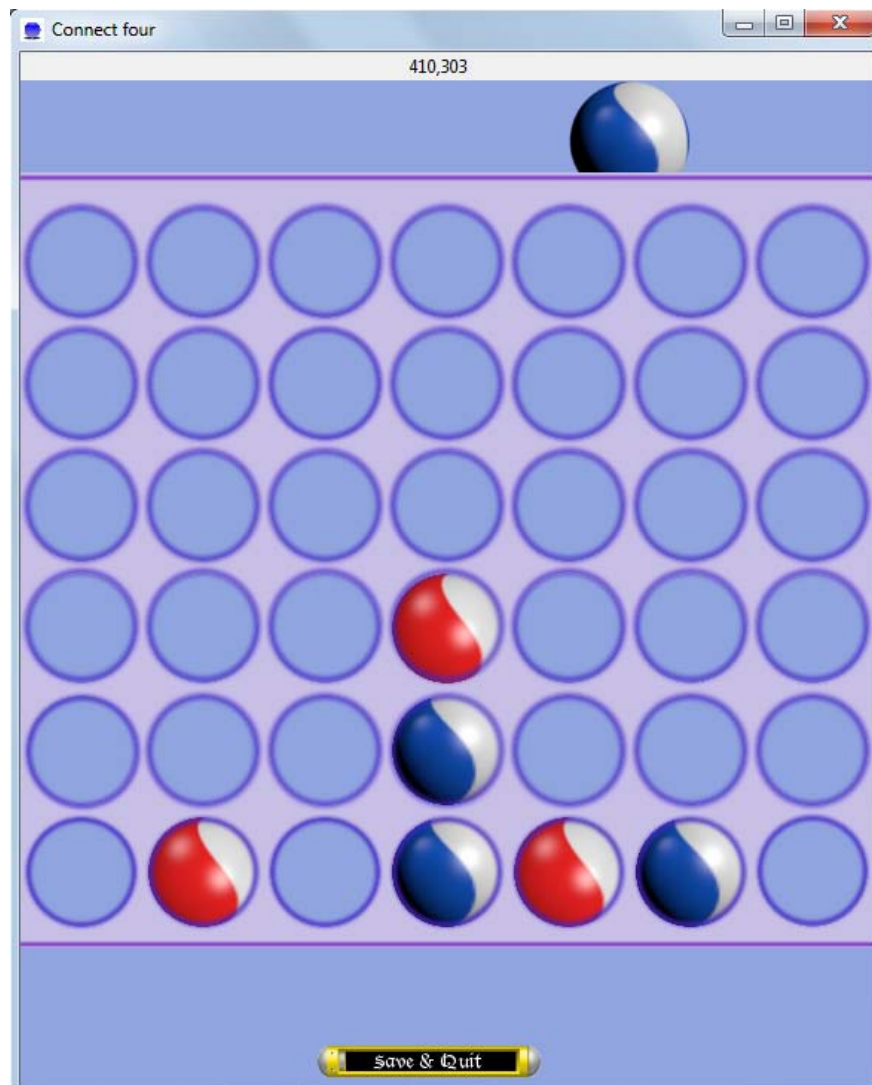
AN OVERALL IDEA OF DESIGN :-

First, a welcome window opens having options like new game, high scores, instructions,etc. When the user clicks on new game, he will be given two options of single player or double player. In single player game, computer plays his move which is calculated by minimax algorithm and the static-evaluation function.

We are able to go to depth of 4 (with less time) by the minimax algorithm we have made. If the human player wins, a new window opens asking for the name of the player. Then it saves the name of the player in the file "text.txt" if it is a high score.

Our home window looks like this:

Our playing window looks like this:

INPUT AND OUTPUT :-

The user inputs the positions of the balls to be dropped through mouse-click.

The balls are dropped according to the input.
As an output, the window shows the above action.

Finally the score is saved along with the player's name if it is a high-score.