

# CENG 453 - Pişti the Game

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## User Manual

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## 1 Getting Started

After launching the application, the user must be authenticated. If the user doesn't have an account, s/he must be registered. After that the user is eligible to login. The user can reset his/her password from the main screen if the password is forgotten. After login the user is directed to the user menu, in this menu the user can start a new game, display the leaderboard or logout.

## 2 Playing the Game - Single Player

The user can make a move by dragging and dropping the card of his/her choice. In the single player mode, the user always makes the first moves against the PC. When user makes a move, s/he must wait for 3-5 seconds for the game to be simulated. This difference is set in order to demonstrate PC like a real person who thinks. Therefore, the user has to wait 3-5 seconds to perform a new move as well. The user may choose to skip the current level by pressing "CTRL + 9" key combinations (the user must wait for his/her turn again). Level 2 is harder than Level 1, as PC makes arbitrary decisions in Level 1 and probabilistic and analytical decision in Level 2. In Level 3, Bluffing Pişti is started. When there is single card in the middle, (the player is eligible to bluff) a red button appears and if player presses this button this move will be bluffing move. After pressing the button, the card that player drags and drops is considered as the bluffing card. Also a bluffing card is placed by the PC, challenge and not challenge buttons appear on screen (in this turn player won't be able to drag and drop cards). After the choice, game resumes as normal. More information about the game level strategies are given below. The user may win the level by gaining 151 points or more, or by using the (cheat) key combination. The game is stopped at the end of level 3, and the player waits for a match in the multiplayer mode.

## 3 Playing the Game - Multi Player

After finishing the level 3, a dialog menu appears and directs user to the multiplayer mode. Player waits for a match. After another player finishes level 3, both of these players are matched and the game is started. The person who starts the game is determined in a fair manner, as the person who was waiting the longest starts the game first. In the scoreboard, the name of the opponent player is displayed as-well. After that the playing the game is similar to playing the Bluffing Pişti. Throughout the game a text appears on the screen which indicates whether it is player's turn or the opponent's turn.

## 4 Game Strategies - Single Player

Game strategy is binding in run time according to level.

- **Level 1 - Easy Difficulty:** PC does not track the history of played cards. If it has any matching card in its deck, it chooses that card. Otherwise, it plays the top card of its deck directly.
- **Level 2 - Normal Difficulty:** As usual, the player makes the first move, then PC plays a card. In its first move, if it does not have any matching card, chooses the card with two or more frequencies. This is because the chance of the card with the same rank existing in the opponent's card is lower. However, if there is not such a card, then it plays the top card of its deck. After the first move, PC starts to look at played cards. The more a rank is played, the lower the chance of reencountering the same rank. In other words, PC tries to play the most frequently played ranks in order to lower the opponent's probability of accomplishing a Pişti. If PC does not have any cards with played ranks, then it plays an arbitrary card from its deck.
- **Level 3 - Hard Difficulty (Bluffing Pişti):** This level maintains the same strategical PC movements as Level 2. However, if the player wants to bluff when there is only one card on the table, then bluffing pişti rules are executed for that time being. Then, the game continues as usual. The main strategy to bluff is decided according to considering the risk factor, therefore the possibility to bluff (when there is possibility) is 60%. Also PC accepts the challenge with 60% possibility as-well. The logical thinking of PC for the normal Pişti and bluffing Pişti is distinct (in bluff luck comes to play) by considering a real person's behaviour. Although the bluff behaviour is performed randomly, again the best card according to the strategy of the PC is placed even when bluffing.