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Steps to Upload the code onto the cpulator and start the game

1. When entering CPULATOR, open the monopoly.c file or copy & paste the content.
2. Disable the Device-Specific warning in the CPULATOR setting tabs
3. Compile & Load with C language option, then Continue to start the game

How to operate the Game & What to expect

1. At the very beginning of the game, a title screen will appear with a message asking you to choose a winning goal.
2. The user has to press 1, 2, or 3 in the PS/2 keyboard to select the winning goal for the monopoly game. All keys described below refers to the PS/2 keyboard.
3. Once the appropriate key is pressed, the screen will translate to the game screen with a monopoly board. This marks the beginning of the game with the selected winning value.
4. The game has two players namely player 1 and player 2. Player 1 is represented by a small red rectangular box. Whereas the player 2 is represented by a small blue rectangular box.
5. The game will start with player 1 making the first move. Both the players will initially have an equal amount of money (\$500 each).
6. A black status bar is situated closer to the bottom of the display screen. This status bar will display specific instructions as the game progresses. This will guide the user on how to proceed forward with the game.
7. The instruction message will prompt the user to press "Space" in order to roll the dice.
8. Then, a dice image with random value will appear shortly, and the character will move within the board according to the dice value.
9. When the character arrives at the destination, a blue dialog box will appear on the left side of the board. This dialog box will provide a specific instruction associated with that destination.
10. If the destination is a property, it will undergo three scenarios:
 - a. If the property is occupied by another player, the arrived player needs to pay money that reduces that player's score and increases another player's score. Space key is required to close the dialog box.
 - b. If the property is unoccupied, then the arrived player has an option to pay money and occupy the property. Pressing Y accepts the option, and N denies the option. The property will be highlighted by the player's color when Y is pressed.
 - c. If the property is occupied by the arrived player, then no action is required. Space key is required to close the dialog box

11. When the player reaches the starting point again, the player will be awarded a money of value \$100. This will result in the increment of the player's score by 100. Space key will be required to close the dialog box.
12. If the destination is a Police box (displays the word JAIL in the monopoly board), then the player moves to the Jail box. Space key is required to close the dialog box.
13. If the destination is a Chance box, then randomized instruction is provided, which either increases or decreases the score of the arriving player, or moves that player to the starting point. Space key is required to close the dialog box.
14. If the player arrives at the Jail box, no action will be performed.
15. As one player's score reaches the winning goal, that player becomes the winner. Also, if one player's score reaches 0, then another player becomes the winner. After a winner is determined, the game screen will translate to the winner screen with a message showing the winner.
16. Pressing R in the winner screen restarts the game, translating the screen to the title screen again.

Demo Link

https://youtu.be/Eix0Ru__rag

Attribution Table

Abhinav Sanjeeva Prasad	Il Gyu Hwang
50%	50%
<ul style="list-style-type: none"> Rolling dice: graphics and algorithms. Basis of the player movements and graphics. This also included the algorithm of the movement. Integrating PS2 Keyboard with the game. Implemented the graphics of the winner screen. Looked at various versions of the code and tried to fix the existing bugs and other issues. Ran various versions of the code and checked for various corner cases. Suggested possible improvements for the game. 	<ul style="list-style-type: none"> Title screen graphics & algorithm Monopoly Board graphics, such as highlighting properties and dialog box animation Overall monopoly game logic (algorithm) Dialog box on the left side and bottom side of the board Finalized player movement algorithm and graphics based on Abhinav's code Implemented character buffers in title, game and winner screen Improved PS/2 keyboard implementation by considering only released key