Simon:

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Overview:

This document outlines the requirements for the software implementation of the classic game of Simon. This software will provide the user with the opportunity to play Simon, and it will keep track of his score. The description of the game and the requirements of this implementation are presented below.

The Game:

The user will be presented with a screen containing a colored box in each corner. One red, one blue, one green and one yellow. There will be a start button and a score box in the middle. Once the user presses start, one box will flash white. Then, the user will have to click the box that flashed. On each consecutive turn, an additional box will flash white. i.e. On the second turn, one box will flash and then a second box will flash. Then, the user will have to click two boxes in the order that they flashed. The goal of the game is for the user to repeat the longest sequence of flashing buttons.

Software Implementation:

UI Elements:

- A colored button in each corner
  - Top left corner: Green Button
  - Top right corner: Red Button
  - Bottom left corner: Yellow Button
  - Bottom right corner: Blue Button
- A display in the middle
  - Top of the display: SIMON
  - Bottom left of the display: A Start Button
  - Bottom right of the display: A Score Box

Game Processes and Rules:

- The game has a resting mode and a playing mode.
- The game begins in resting mode. Only the start button is enabled.
- Once the user clicks start, the game enters playing mode, and the game begins. 1 button will flash white and the user has to click that button. The button will flash white upon the user's click. If he clicks the correct button, the score box will display a 1. Then, a sequence of 2 buttons will flash white, one after the next. Once the sequence is

complete, the user has to click the buttons in the order that they flashed. If he successfully repeats the sequence, his score goes up to 2. The game continues in this fashion, with the sequence of buttons increasing by 1, and his score rising in accordance with the number of buttons in the sequence.

- The user cannot click buttons while the computer is flashing its sequence.
- When the user does not successfully repeat a sequence, the game ends and returns to resting mode. The score box will display the number of buttons in the last sequence that he repeated correctly.
- The game begins again when the user presses start. The score box clears and the game enters playing mode.
- If the user presses start in the middle of a game, the score box clears and the game begins again.