

# Sequence

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## Overview

This document describes requirements for the software implementation of The Sequence Game. This software is for a one player game where the user gets to test and sharpen its memory. A description of the game plus the requirements is provided below.

## The Game

The user is presented with four empty boxes and 20 buttons with images on them. When The user presses start, one image appears in each of the empty boxes and the user gets 10 seconds to memorize the images in their correct order. When the ten seconds are over the four images disappear and the user has to click four of the 20 buttons that matches the image in the correct order. you get one try for each box, once you fill up all four it sums up how many boxes out of the four you got right after five times that you get 4/4 you go up to level 2 where you get only five seconds to memorize the images after another 5 perfect scores you go up to level three where you get only 3 seconds to memorize the images if you do another 5 perfect scores than you win and you can start the game all over again.

## Software Implementation

### UI elements

The software will present the sequence game with the UI elements listed below.

- A text box on top for the instructions and messages.
- 4 labels to Display the images.
- 3 small labels that say: Level, Number of Perfect Scores, Round Score. and 3 textboxes beside the labels to display the numbers.
- A round start button
- 20 buttons underneath to display all images possible.
- A start button.

## Software Requirements for Sequence

### Game Process and Rules

- The Game starts when the player clicks on the start button until then all the controls are disabled and the Message box says “Click start to begin the game”.
  - The start button can always be clicked to start a new game and is never disabled.
- After start is clicked the player gets instructions in the message box saying “you will be getting ten seconds to memorize the 4 images that will come up in the empty spots”. The round start button will be saying “Click me to start round #1” and the image labels back color is black.
- After the round start button is clicked all buttons are disabled, Message box clear, image label back color is turquoise and one image appears in each of the 4 labels for ten seconds.
- When the ten seconds are over all buttons are enabled and the message box says “Click the right images in the correct order”.  
Image label Back color is black.
- If the button clicked doesn't match the image in that box than a red “x” should pop up in that box if it does match the image than the correct image pops up in white.
- When all four boxes are filled up (either with the correct picture or with an x) then the round score displays: # of correct guesses / 4.
- When all four images are correct the four images should turn green and the message box should say “Great Job! “. The number of perfect scores should go up by one.
- After round 1 the round start button will be saying “Click me to start round #2” and the round will start all over again with the images popping up. The number of scores going up if it's a perfect score and the round score being displayed at the end of the round.
  - The game has unlimited rounds.
  - When the number of perfect scores reach five the player goes up to level 2  
The Images button's back color changes to Yellow and the message box says “You are up to level 2! You get only 5 seconds to memorize the 4 images.”
  - After another 5 perfect scores the player goes up to level 3 where he gets only 3 seconds to memorize. The Images button's back color changes to orange and

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the message box says “You are up to level 3! You get only 3 seconds to memorize the 4 images.”

- After another five perfect scores the player won. The Images button’s back color changes to Hot Pink and the message box says “You Won!!!!” and all the controls are disabled until the player starts the game all over again.