

Final Project Deliverable #2

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Flow

After the user completes a challenge, he/she moves on to the next one. After the last challenge is complete, he/she has won the game.

- To win challenge 1 (Same Game), the user must either finish with a certain score (the specific number to be determined later) or remove all squares.
- To win challenge 2 (Snake), the user must eat a certain number of apples before dying (the specific number to be determined later).
- To win challenge 3 (Towers of Hanoi), the user must finish with fewer than some number of moves (the specific number to be determined later).

If the user fails to complete a challenge (he/she finishes the game but does not meet the requirements), the task is restarted.

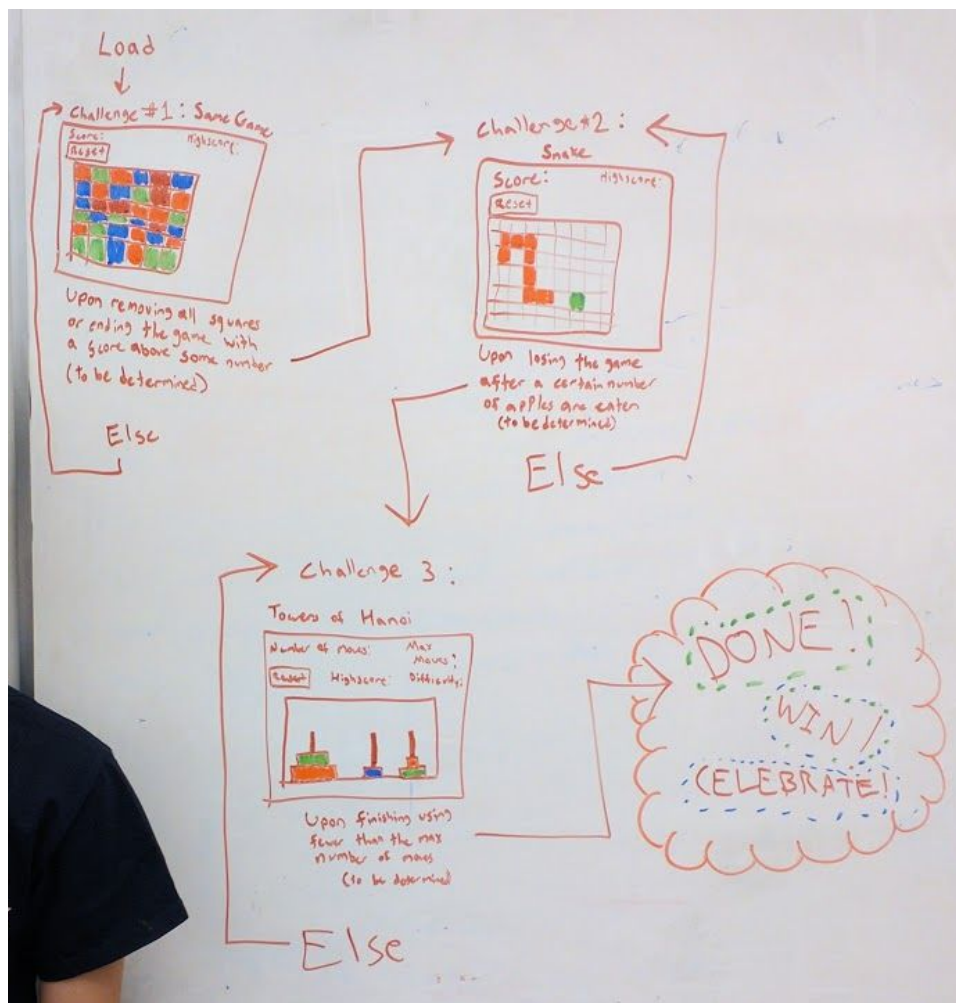


Figure 1: Diagram of the project's flow

RUBRICS:

Challenge 2 - Snake

This assignment is worth 40 points. Requirements:

- (2) Page layout with game board, score, mute button, and reset button
- (4) Board displays with snake and apples
- (2) Apples are randomly assigned position
- (2) Board is drawn on a timer
- (2) Snake continues present movement without user input
- (2) Mute button works as expected

When a key is pressed:

- (1) Snake changes direction according to key
- (4) Tail continues to follow the head of the snake

Collisions:

- (4) Sound plays when apple is eaten
- (2) Apple disappears when eaten
- (2) Message displays when snake dies
- (2) Sound plays when snake dies
- (2) Snake dies on wall collision
- (2) Snake dies on collision with self
- (3) Snake elongates upon apple eating

HTML save data:

- (4) Local high score and name maintained after reopening game

Challenge 3 - Towers of Hanoi

This assignment is worth 20 points. Requirements:

- (2) Page layout with game board, remaining move count, mute button, and reset button
- (2) Difficulty setting with 5, 6, 7 pieces
- (2) Changing difficulty resets game and resets score appropriately
- (4) Dragging Hanoi blocks follows mouse correctly
- (2) Blocks snap into position if dropped close to post
- (2) Bigger blocks placed on smaller blocks return to previous position

Sounds play when blocks move:

- (2) Correctly and incorrectly with different sounds
- (2) Mute button works as expected
- (2) High Score and Name is saved between sessions

OTHER:

Local Storage

High score for both games will be stored locally to be access on the opening of each game. The name of the high scorer will be gathered upon gaining the high score and will be presented next to the current high score in each game. (Similar to how arcade games do it.)

Audio

Snake will implement sounds when apples are eaten and when the snake dies. The audio should incentivize the player to eat the apples and not die. In Towers of Hanoi, a similar system will be utilized. A sound signaling a good move will play when the disk is successfully moved to another post. A bad move (the player tries to put a larger disk on a smaller one) will be accompanied by a different sound that will inform the user of the mistake.