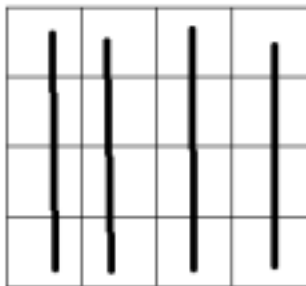
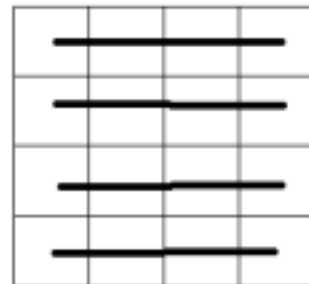
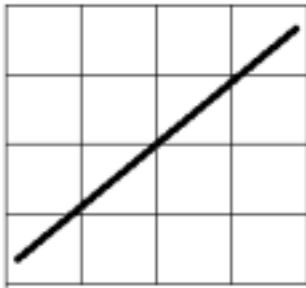


## Project Statement

### Project 1 (tic-tac-toe):

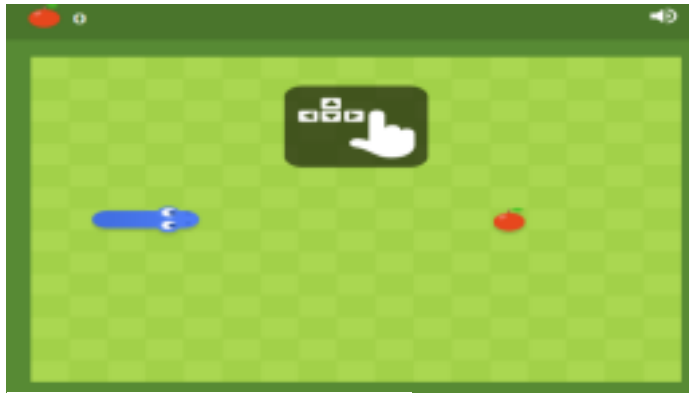
The tic-tac-toe game is for two players. One player plays X and the other plays O. The players take turns placing their marks on a grid of four-by-four cells. If a given player gets four marks in a row horizontally, vertically, or diagonally, then that player wins the game. The game will be tied if no one gets four in a row by the time all the cells are marked. Make a good interface and it could have a second player as a computer or a person.

Winning Scenarios:



### Project 2 (Snakes & Apples):

Snakes & Apples is a free-thinking game for children and adults alike, where the goal is to guide the snake to eat all the apples in their correct order. Snakes eat apples and grow. But don't be deceived by this seemingly easy mission! While eating the apples, the snake must also slither through every open space on the board. In the game of Snake, the player uses the arrow keys to move a "snake" around the board. As the snake finds apples, it eats the food, and thereby grows larger. The game ends when the snake either moves off the screen or moves into itself. The goal is to make the snake as large as possible before that happens. Note: You can use arrow keys to move the snake up, down, right and left.



### Project 3 (Word Hunt):

Word Hunt is a word-finding game that can help to widen your vocabulary knowledge. Letters of words are placed in a grid, which usually has a rectangular or square shape. The objective of this game is to find and mark all the words hidden inside the grid (4x4). The user will type the word if that word is found in a grid (vertically, horizontally, or diagonally) the score of the user will be incremented.



### Project 4 (2048 Sliding Block Game):

2048 is a single-player sliding block puzzle game. It's a game played on a 4x4 grid, with numbered tiles. The game's objective is to slide numbered tiles on a grid to combine them to create a tile with the number 2048. In its basic version, the game stops as soon as you manage to create a 2048 tile. At each stage, you slide tiles in any of the four directions of the screen (up, down, left, and right).

### Project 5 (Hangman):

Hangman is a fun guessing game and is an easy word game to play when you need to pass the time or when you only have a short amount of time to play a game. It is especially enjoyable for people who like guessing games and word games. The object of the game is to guess the word before the stick figure character is fully drawn. In your case, the user can only guess a word of four lengths. You can maintain your own dictionary of words of four lengths. Only four chances can be given to the user otherwise they will fail the game. One word of four

lengths is in memory which the user will guess. Users can type the letter through the keyboard.

### **Project 6 (Mini Candy Crush):**

Mini Candy Crush game is a game that matches the sequence of 4 characters placed in adjacent cells. Players can swap two adjacent characters to create a row, column, or diagonal of the matched character sequence. The match sequence will be removed from the game board (after a successful match is found). For every match, the player will score  $n$  points, where  $n$  is the total number of characters in the sequence removed. Furthermore, a bomb will be created once a sequence of 5 characters is created by the player. The bomb will destroy all the occurrences of that specific character from the board. The same number of points will be added to the user score. Once a sequence is removed from the board, the same number of random characters will appear and fill randomly the top cells of the board. Player information is displayed in the top right corner of the screen.