let blockSize = 25;

let total\_row = 17;

let total\_col = 17;

let board;

let context;

let snakeX = blockSize \* 5;

let snakeY = blockSize \* 5;

let speedX = 0;

let speedY = 0;

let snakeBody = [];

let foodX;

let foodY;

let gameOver = false;

window.onload = function() {

board = document.getElementById("board");

board.height = total\_row \* blockSize;

board.width = total\_col \* blockSize;

context = board.getContext("2d");

placeFood();

document.addEventListener("keyup", changeDirection);

setInterval(update, 1000 / 10);

}

function update() {

if (gameOver) {

return;

}

context.fillStyle = "green";

context.fillRect(0, 0, board.width, board.height);

context.fillStyle = "yellow";

context.fillRect(foodX, foodY, blockSize, blockSize);

if (snakeX == foodX && snakeY == foodY) {

snakeBody.push([foodX, foodY]);

placeFood();

}

for (let i = snakeBody.length - 1; i > 0; i--) {

snakeBody[i] = snakeBody[i - 1];

}

if (snakeBody.length) {

snakeBody[0] = [snakeX, snakeY];

}

context.fillStyle = "white";

snakeX += speedX \* blockSize;

snakeY += speedY \* blockSize;

context.fillRect(snakeX, snakeY, blockSize, blockSize);

for (let i = 0; i < snakeBody.length; i++) {

context.fillRect(snakeBody[i][0], snakeBody[i][1], blockSize, blockSize);

}

if (snakeX < 0 || snakeX > total\_col \* blockSize || snakeY < 0 || snakeY > total\_row \* blockSize) {

gameOver = true;

alert("Game Over");

}

for (let i = 0; i < snakeBody.length; i++) {

if (snakeX == snakeBody[i][0] && snakeY == snakeBody[i][1]) {

gameOver = true;

alert("Game Over");

}

}

}

function changeDirection(e) {

if (e.code == "ArrowUp" && speedY != 1) {

speedX = 0;

speedY = -1;

} else if (e.code == "ArrowDown" && speedY != -1) {

speedX = 0;

speedY = 1;

} else if (e.code == "ArrowLeft" && speedX != 1) {

speedX = -1;

speedY = 0;

} else if (e.code == "ArrowRight" && speedX != -1) {

speedX = 1;

speedY = 0;

}

}

function placeFood() {

foodX = Math.floor(Math.random() \* total\_col) \* blockSize;

foodY = Math.floor(Math.random() \* total\_row) \* blockSize;

}

body {

background-color: #f0f0f0;

}

#board {

border: 1px solid black;

}

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Snake Game</title>

<link rel="stylesheet" href="style.css">

</head>

<body>

<canvas id="board" width="425" height="425"></canvas>

<script src="script.js"></script>

</body>

</html>