**Snake Game Using HTML, CSS and Javascript**

**HTML code:**

<html>

<head>

<title>JS Practice</title>

</head>

<style>

#mycanvas{

background-image:url("snakeani.png");

border: 15px solid green;

}

</style>

<body>

<div>

<canvas id="mycanvas"></canvas>

</div>

<script src="snakegame.js">

</script>

</body>

</html>

**CSS and Javascript code:**

function init(){

var canvas=document.getElementById('mycanvas');

w=canvas.width=1100;

h=canvas.height=600;

pen=canvas.getContext('2d');

cs=40;

score=2;

//create a food image for food

foodimage=new Image();

foodimage.src="mouse.jpg";

thropyimage=new Image();

thropyimage.src="trophy.png";

gameover=false;

food=getrandomfood();

snake={

init\_len:5,

color:"black",

cells:[],

direction:"right",

createsnake: function(){

for(var i=this.init\_len;i>0;i--){

this.cells.push({x:i,y:0});

}

},

drawsnake:function(){

pen.fillStyle=this.color;

for(var i=0;i<this.cells.length;i++){

pen.fillRect(this.cells[i].x\*cs,this.cells[i].y\*cs,cs-2,cs-2);

}

},

updatesnake:function(){

console.log("updating sanke");

//updating according to the direction property

//check if the snake has eaten the food

//genarate new food item

var headx=this.cells[0].x;

var heady=this.cells[0].y;

if(headx==food.x && heady==food.y){

console.log("food eaten");

food=getrandomfood();

score++;

}

else{

this.cells.pop();

}

var nextx,nexty;

if(this.direction=="right"){

nextx=headx+1;

nexty=heady;

}

else if(this.direction=="left"){

nextx=headx-1;

nexty=heady;

}

else if(this.direction=="up"){

nextx=headx;

nexty=heady-1;

}

else{

nextx=headx;

nexty=heady+1;

}

//to end the game

var lastx=Math.round(w/cs);

var lasty=Math.round(h/cs);

if(this.cells[0].y<0 || this.cells[0].x<0 ||this.cells[0].x>lastx || this.cells[0].y>lasty){

gameover=true;

}

this.cells.unshift({x:nextx,y:nexty});

}

};

snake.createsnake();

//Add Event Listener on the Document Object

function keypressed(e){

//conditional statement

if(e.key=="ArrowRight"){

snake.direction="right";

}

else if(e.key=="ArrowLeft"){

snake.direction="left";

}

else if(e.key=="ArrowDown"){

snake.direction="down";

}

else {

snake.direction="up";

}

console.log(snake.direction);

}

document.addEventListener('keydown',keypressed);

}

function draw(){

//earse the old frame

pen.clearRect(0,0,w,h);

snake.drawsnake();

pen.drawImage(foodimage,food.x\*cs,food.y\*cs,cs,cs);

pen.drawImage(thropyimage,18,20,cs,cs);

pen.fillStyle="black";

pen.font="25px roboto";

pen.fillText(score,35,50);

}

function update(){

snake.updatesnake();

}

function getrandomfood(){

var foodx=Math.round(Math.random()\*(w-cs)/cs);

var foody=Math.round(Math.random()\*(h-cs)/cs);

var food={

x:foodx,

y:foody,

color:"red"

}

return food;

}

function gameloop(){

if(gameover==true){

clearInterval(f);

alert("THE END");

return;

}

draw();

update();

}

init();

var f=setInterval(gameloop,100);