

App Lab Simon Game

You will need one screen (see images):

id	
logolmage	
width (px)	225
height (px)	85
x position (px)	50
y position (px)	5
image	Screen Shot 2018-03-28 at 2...
fit image	fill

greenButton	
text	
width (px)	160
height (px)	130
x position (px)	0
y position (px)	95
text color	#ffffff
background color	#009900
font size (px)	14

redButton	yellowButton	blueButton
text	text	text
width (px)	width (px)	width (px)
160	160	160
height (px)	height (px)	height (px)
130	130	130
x position (px)	x position (px)	x position (px)
160	0	160
y position (px)	y position (px)	y position (px)
95	225	225
text color	text color	text color
#ffffff	#ffffff	#ffffff
background color	background color	background color
#990000	#999900	#000099
font size (px)	font size (px)	font size (px)
14	14	14

playAgainButton	
text	PLAY AGAIN
width (px)	285
height (px)	65
x position (px)	20
y position (px)	360
text color	#ffffff
background color	#000000

Game Code

```
// green = 0, red = 1, yellow = 2, blue = 3
```

```
var sequence = [];
```

```
var playerAnswers = [];
```

```
var roundNumber = 1;
```

```
flashSequence();
```

```
function flashSequence(){
```

```
    playerAnswers = [];
```

```
    sequence.push(randomNumber(0,3));
```

```
    for(var i = 0; i < roundNumber; i++){
```

```
        var currentLight = sequence[i];
```

```
        if(currentLight === 0) flashGreen();
```

```
        if(currentLight === 1) flashRed();
```

```
        if(currentLight === 2) flashYellow();
```

```

    if(currentLight === 3) flashBlue();
  }
}

function checkAnswer(){
  // sequence [1, 2, 3, 0]
  // playerAns [1, 2, 3, 0]
  var currentAnswerIndex = playerAnswers.length - 1;
  var currentAnswer = playerAnswers[currentAnswerIndex];
  if(currentAnswer !== sequence[currentAnswerIndex]){
    gameOver();
  }else if(currentAnswerIndex == sequence.length - 1){ //last answer
    roundNumber++;
    setProperty("textBox","text", "NEXT ROUND!");
    wait(1000);
    setProperty("textBox", "text", "");
    flashSequence();
  }
}

function gameOver(){
  setProperty("textBox","text", "GAME OVER!");
  wait(2000);
  setProperty("textBox","text", "");
  showElement("playAgainButton");
}

function flashGreen(){
  setProperty("greenButton","background-color", "#00FF00");
  wait(250);
  setProperty("greenButton","background-color", "#009900");
  wait(100);
}

```

```
function flashRed(){
  setProperty("redButton","background-color", "#FF0000");
  wait(250);
  setProperty("redButton","background-color", "#990000");
  wait(100);
}
```

```
function flashYellow(){
  setProperty("yellowButton","background-color", "#FFFF00");
  wait(250);
  setProperty("yellowButton","background-color", "#999900");
  wait(100);
}
```

```
function flashBlue(){
  setProperty("blueButton","background-color", "#0000FF");
  wait(250);
  setProperty("blueButton","background-color", "#000099");
  wait(100);
}
```

```
function wait(ms){
  var startTime = getTime() ;
  var currentTime = getTime();
  while(currentTime - startTime < ms){
    currentTime =getTime();
  }
}
```

```
onEvent("greenButton", "mousedown", function(){
  setProperty("greenButton", "background-color", "#00FF00");
});
```

```
onEvent("greenButton", "mouseup", function(){
  setProperty("greenButton", "background-color", "#009900");
  playerAnswers.push(0);
  checkAnswer();
});
```

```
onEvent("redButton", "mousedown", function(){
  setProperty("redButton", "background-color", "#FF0000");
});
```

```
onEvent("redButton", "mouseup", function(){
  setProperty("redButton", "background-color", "#990000");
  playerAnswers.push(1);
  checkAnswer();
});
```

```
onEvent("yellowButton", "mousedown", function(){
  setProperty("yellowButton", "background-color", "#FFFF00");
});
```

```
onEvent("yellowButton", "mouseup", function(){
  setProperty("yellowButton", "background-color", "#999900");
  playerAnswers.push(2);
  checkAnswer();
});
```

```
onEvent("blueButton", "mousedown", function(){
  setProperty("blueButton", "background-color", "#0000FF");
});
```

```
onEvent("blueButton", "mouseup", function(){
  setProperty("blueButton", "background-color", "#000099");
  playerAnswers.push(3);
  checkAnswer();
});
```