

Words Typing Display Game

Exercise is to create a speed typing game using JavaScript, the game will test time and accuracy of typed words. Each word will show, as well as the following word in the random word sequence. The objective of the JavaScript game is to type the words accurately and quickly. This lesson will explore using JavaScript Date object, JavaScript DOM to create and update page elements, DOM for element event listeners. Applying logic and gameplay with JavaScript Code.

00:02:641

people rat

Total Accuracy 77 with a time of 00:05:571

mon (monkey) accuracy 50%

dog (dog) accuracy 100%

peopl (people) accuracy 83%

Restart Game

```
<!DOCTYPE html>
<html>
<head>
<title>JavaScript Course</title>
<style>
*{
  box-sizing:border-box;
}
```

```
.output, input,btn{
  font-size:1em;
  width:50%;
  text-align:center;
  margin:auto;
}
.btn{
  background-color:black;
  color:white;
  width:50%;
  display:block;
  padding:5px;
  margin:10px auto;
}
.curw{
  font-size:1.2em;
  color:#000;
  padding:10px;
}
.nextw{
  font-size:0.9em;
  color:#333;
  padding:10px;
}
</style>
</head>
<body>
<div class="main"></div>
<script src="/js/app.js"></script>
```

```
</body>
</html>
```

```
const main = document.querySelector('.main');
const words =
['JavaScript','cat','dog','people','code','rat','monkey','duck','horse'];
const game =
{inplay:false,cur:0,timer:null,num:3,arr1:[],arr2:[],start:null,end:null};
const timerVal = createEles('div',main,',','output');
const output = createEles('div',main,'Press Start','output');
const txtArea = createEles('input',main,',','txtArea');
txtArea.setAttribute('type','text');
txtArea.style.display = 'none';
const btn = createEles('button',main,'Start','btn');

btn.onclick = startGame;
txtArea.addEventListener('keydown',keyChecker);

function keyChecker(e){
  if(e.code == 'Enter' || e.code=='Space'){
    game.cur++;
    game.arr2.push(txtArea.value.trim());
    txtArea.value = "";
    showWords();
  };
}

function buildArray(){
```

```

game.arr1.length = 0;
let lastindex;
while (game.arr1.length < game.num){
  const ranIndex = Math.floor(Math.random()*words.length);
  if(lastindex !== ranIndex){
    game.arr1.push(words[ranIndex]);
    lastindex = ranIndex;
  }
}
console.log(game.arr1);
}

```

```

function startGame(){
  buildArray();
  game.cur=0;
  game.timer=null;
  game.arr2.length = 0;
  game.start=null;
  game.end=null;
  btn.style.display = 'none';
  let counter = 5;
  output.textContent = `Get Ready ${counter}`;
  game.timer = setInterval(()=>{
    output.textContent = `Get Ready ${counter}`;
    counter--;
    if(counter<=0){
      clearInterval(game.timer);
      gamePlay();
      txtArea.style.display = 'block';
    }
  }, 1000);
}

```

```
    }  
  },100);  
}
```

```
function gamePlay(){  
  game.start = new Date().getTime();  
  game.inplay = true;  
  txtArea.focus();  
  showWords();  
  let mins,secs,millis;  
  game.timer = setInterval(()=>{  
    timerVal.textContent = outputTimer();  
  },10);  
}
```

```
function outputTimer(){  
  const diff = new Date().getTime() - game.start;  
  mins = parseInt(diff/1000/60);  
  mins = mins < 10 ? '0'+mins:mins;  
  secs = parseInt(diff/1000);  
  secs = secs < 10 ? '0'+secs:secs;  
  if(secs>60) secs %=60;  
  millis = diff;  
  if(millis>1000) millis %=1000;  
  return `${mins}:${secs}:${millis}`;  
}
```

```
function gameOver(){
```

```

timerVal.style.display = 'none';
txtArea.style.display = 'none';
btn.style.display = 'block';
btn.textContent = 'Restart Game';
if(game.timer) {
    clearInterval(game.timer);
}
let total;
let tacc= 0;
let html = "";
game.arr2.forEach((val,ind)=>{
    let aru = 0;
    const correct = game.arr1[ind];
    console.log(correct);
    [...correct].forEach((letter,i) =>{
        if(letter == val[i]){
            aru++;
        }
    })
    const accuracy = aru == 0 ? 0 : Math.floor((aru/correct.length ) *
100);
    tacc += accuracy;
    html += `<div>${val} (${game.arr1[ind]}) accuracy
${accuracy}%</div>`;
})
console.log(tacc);
console.log(game.arr2.length);
total = Math.floor(tacc/game.arr2.length);

```

```
    output.innerHTML = `<div>Total Accuracy ${total} with a time of  
    ${outputTimer()}</div>${html}`;  
  }
```

```
function showWords(){  
  output.innerHTML = "";  
  if(game.inplay){  
    if(game.cur >= game.num){  
      gameOver();  
      game.inplay = false;  
      console.log('game over');  
    }else{  
      const w = game.arr1[game.cur];  
      const curWord = createEles('span',output,w,'curw');  
    }  
    if(game.cur+1 < game.num){  
      const n = game.arr1[game.cur+1];  
      const nextWord = createEles('span',output,n,'nextw');  
    }  
  }  
}
```

```
function createEles(t,p,html,cla){  
  const ele = document.createElement(t);  
  ele.innerHTML = html;  
  ele.classList.add(cla);  
  return p.appendChild(ele);  
}
```