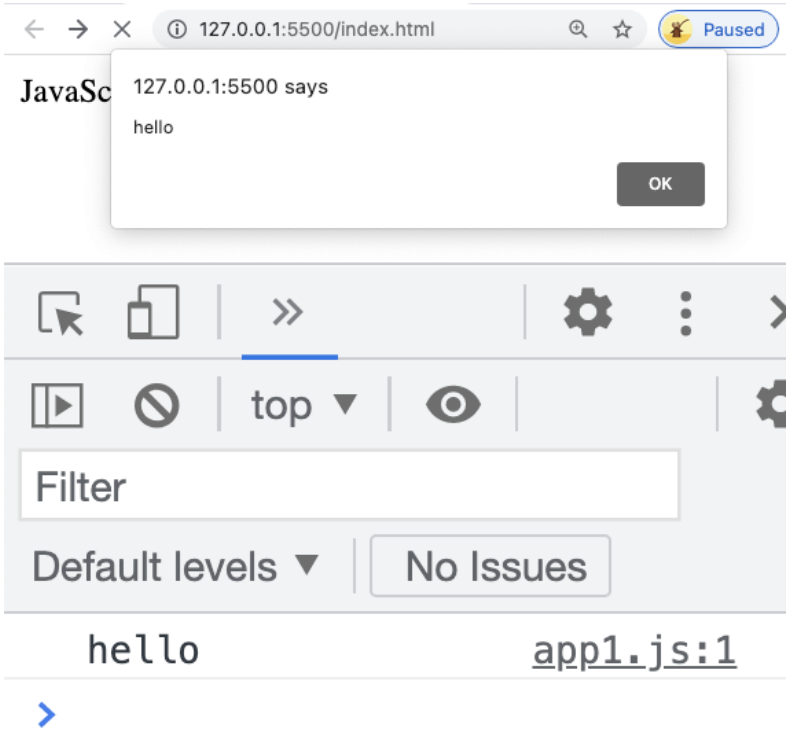
Getting Started with JavaScript

- JavaScript Introduction alert prompt




```
<!doctype html>
<html>
<head>
 <title>JavaScript</title>
</head>
<body>
 <div class="output" onclick="alert('hello')">JavaScript</div>
 <script src="app1.js"></script>
</body>
</html>
```

```
console.log('hello');
alert('hello');
```

```
alert('world');
console.log('world');
```

JavaScript Variables

- Variables Let and Const

```
console.log('ready');
// No space in the variable name
// $_0-9a-zA-Z
// Case sensitive
// Can't begin with 0-9
// can't use reserved JavaScript Keyword
/// var used prior to let and const introduction
let myName = 'Laurence Svekis';
console.log(myName);
myName = 'Laurence Smith';
console.log(myName);
const myName1 = 'Laurence 1';
///myName1 = 'Linda';
console.log(myName1);



if(true){
   const myName1 = 'Laurence 2';
   console.log(myName1);
   console.log(myName);
}
```

JavaScript reserved keywords
https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Lexical_grammar

JavaScript DataTypes

- Data Types

```
const myName = 'Laurence\'s "Svekis"'; //String
let val = "String's";
val = 100;
val = "100" + 100 + 100 + "100";
val = undefined;

let val1;
val = null;

let a,b,c,d;
b =100; // Number
val = true; //boolean
val = false; //boolean

console.log(myName);
console.log(val);
console.log(typeof(b));
```

JavaScript Objects and Arrays

- Arrays and Objects

```
const myArr = ['string',100,true];
//console.log(myArr);
```

```
//console.log(myArr[0]);

myArr[0] = 'New Value';

//console.log(typeof myArr);

const myObj = {
   first:'string',
   val : 100,
   boo : true
};

//console.log(myObj);
//console.log(typeof myObj);

//console.log(myObj['boo']);
myObj['boo'] = 'New Value';

//console.log(myObj.boo);

const myName = {
   first : 'Laurence',
   last : 'Svekis',
   arr : [1,2,3,4],
   myObj : {
       one : 'one',
       two : 'two'
   }
}
console.log(myName.myObj.one);
console.log(myName['myObj']['one']);
```

```
const myArr2 = myArr;
myArr2[2] = 'wow';
console.log(myArr);
console.log(myArr2);

const myObj2 = myObj;
myObj.first = 'Laurence';
console.log(myObj2);
```

JavaScript Operators

- Operators

```
let val = 1;
val = val * 5;
val = val - 3;
val = val / 2;
val = val + 10 + 10 +  30;
val = 51 % 10;
val++;
val--;

val -= 3;
val += 10;
val *= 5;

let val1 = "Laurence";
let val2 = "Svekis";
```

```
val = val1 + " " +  val2;
val += " Course Instructor";
//console.log(val);

let val3 = 10 + 10 + "10";
//console.log(val3);

let output = (10 == 10);
output = (10 != 10);
output = (10 !== "10");
output = (5 <= 10);
console.log(output);
```

JavaScript Functions

- Functions
- function expressions vs function declarations

function declarations

- global scope and make it available throughout your code

function expression

- function expression can be used as an IIFE

```
//console.log(myFun2());
//myFun2();
///myFun2();
const val2 = myFun2();
//console.log(val);

const myFun1 = function(){
   //console.log('Fun 1');
   return '1';
```

```
}

const val1 = myFun1();
//console.log(val1);
//myFun1();
//myFun1();

const myFun3 = function(){
   //console.log('Fun 3');
   return '3';
}();
//console.log(myFun3);


function myFun2(){
   //console.log('Fun 2');
   return '2';
}
let val = 100;
val = adder(5,10);
console.log(val);
console.log(adder(7,80));
console.log(adder(117,80));

let a = 50;
let b = 94;
let test = a + ' + ' + b + ' = '+ adder(a,b);
console.log(test);
console.log(a + ' + ' + b + ' = '+ adder(a,b));

function adder(a,b){
   //let val = a + b;
```

```
   console.log(val);
   return a + b * 1;
   console.log('message');
}
```

JavaScript Conditions

- Conditions
- if, else if, and else

```
let boo = true; //null 0 undefined
if (boo ) {
   console.log('boo is true');
} else if(boo == false) {
   console.log('boo is false');
} else {
   console.log('boo is something else');
}



let a = 40;
let b = 10;
checker(50,100);
checker(70,10);
checker(80,100);

function checker(a,b){
   let res;
   if ( a > b) {
      res = (a + ' is bigger than ' + b);
```

```
    } else {
        res = (a + ' was not bigger than ' + b);
    }
    console.log(res);
}
```

JavaScript Loops

- Loops Do While, For, While, for each

```
for (let x=0;x<10;x++) {
    //console.log(x);
}
let x = 100;
while ( x < 10) {
    console.log(x);
    x++;
}
do {
    //console.log(x);
    x++;
}
while( x < 10 )
//console.log(x);

const test = [10,34,54,32,32234,3234];

//console.log(test.length);
for(let x=0 ; x < test.length ; x++){
    //console.log(test[x]);
```

```
}

for(let item of test){
   //console.log(item);
}

for (let x in test) {
   //console.log(x + " = " + test[x]);
}

test.forEach(function(val,index,array){
   console.log(val + ' ' + index);
});

const myObj = {
   first : 'Laurence',
   last : 'Svekis',
   one : 1,
   two : 2,
   three : 3
}

for (let x in myObj){
   //console.log(x + ':' + myObj[x]);
}
```