HTML

markup language
content

CSS

style sheet language
presentation

JavaScript

programming language
behavior

```
var year, month, day;
```

```
var myVariable;
```


myVariable

integer?
floating point number?
text string? boolean value? array? date? object?

```
if ( condition ) {
  // code goes here
  // ...
}
```

(parentheses   )

[brackets   ]

{   braces   }

```
if ( condition ) {
  // code goes here
  // ...
}
```

```
if (  a < 50  ) {
    // code goes here
    // ...
}
```

```
if (    b > 20   ) {
    // code goes here
    // ...
}
```

```
if (  c == 99  ) {
  // code goes here
  // ...
}
```

```
if ( c === 99 ) {
    // code goes here
    // ...
}
```

```
if (  d != 100 ) {
  // code goes here
  // ...
}
```

```html
<!DOCTYPE html>
<html lang="en">
    <head>
        <title>Hello</title>
    </head>
    <body>
        <div>
            <p>regular body text</p>
        </div>
        <script>
            alert("hello");
        </script>
    </body>
</html>
```

```javascript
var amount = 500;

if ( amount < 1000 )
    alert("It's less than 1000");
```

```
if (              ) {
   // code goes here
   // ...
} else {
      // otherwise, different code



   }
```

```
if (              ) {
  // code goes here
  // ...
} else {
    // otherwise, different code
    if (        ) {
      // nested if
    }
}
```

```
score += 10;

+=    -=    *=    /=
```

```
result = 5 + 5 * 10;
  55       5 +   50
```

```
result = (5 + 5) * 10;
  100        10      * 10
```

```
if (a == b) {

    // execute this code

}
```

```
var a = 5;
var b = 10;

if (a = b) {

    // always true!

}
```

`=`	assignment
`==`	equality
`===`	strict equality

```javascript
var a = 5;
var b = "5";

if ( a == b) {
  alert("Yes, they're equal");
} else {
  alert("They are NOT equal");
}
```

```javascript
function myOtherFunction() {
    // lots of code
}

function myFunction() {
    // lots of code
    myOtherFunction();
}

myFunction();
```

```
var a = 5;
var b = "5";

if ( a === b) {
  alert("Yes, they're equal");
} else {
  alert("They are NOT equal");
}
```

```
var foo = 10;
var bar = 20;

if ( foo < bar ) {
    alert("foo is less than bar");
    alert("and here's a second message");
    alert("and here's a third message");
}
```

JavaScript
is
case
SENSITIVE!

```
var foo = 10;
var bar = 20;

if ( foo < bar ) {
    console.warn("foo is less than bar");
  // console.log(foo);
  // console.log(foo,bar);
}
```

```javascript
var foo = 10;
var bar = 20;

if ( foo < bar ) {
    console.error("foo is less than bar");
    // console.log(foo);
    // console.log(foo,bar);
}
```

```
statement one
statement two

statement one
statement two

statement one
statement two
```

```
repeat 5 times {
    statement one
    statement two
}
```

```
repeat 5000 times {
        statement one
        statement two
}
```

```javascript
var a = 1;

if ( a < 10 ) {
    console.log(a);

}
```

```
var a = 1;

while  ( a < 10 ) {
    console.log(a);

}
```

parameters

```
function myFunction (   x,y  ) {
    var myVar = x * y;
    console.log(myVar);


}
```

```javascript
var a = 1;

while ( a < 10 ) {
    console.log(a);
    a++;
}
```

```javascript
var a = 1;

do {
    console.log(a);
    a++;
} while ( a < 10);
```

```javascript
var a = 100;

do {
    console.log(a);
    a++;
} while ( a < 10);
```

```javascript
var a = 100;

do {
    console.log(a);
    a++;
} while ( a < 10);
```

```
var i = 1;

while ( i < 10 ) {
    // do stuff
    // do stuff
    // do stuff
    // etc..
    i++;
}
```

setup index   **check condition**

```
for ( var i = 1 ; i < 10 ; i++ ) {
        // do stuff
        // do stuff
        // do stuff
        // etc..
}
```

```
for ( var i = 1 ; i < 5000 ; i++ ) {
  // do stuff
  // do stuff
  if (i == 101) {
    break;
  }
  // do stuff
}

// break jumps out of the loop
```

```
for ( var i = 1 ; i < 5000 ; i++ ) {
  // do stuff
  // do stuff
  if (i % 5 == 0) {
    continue;
  }
  // do second set of stuff
  // do second set of stuff
}
```
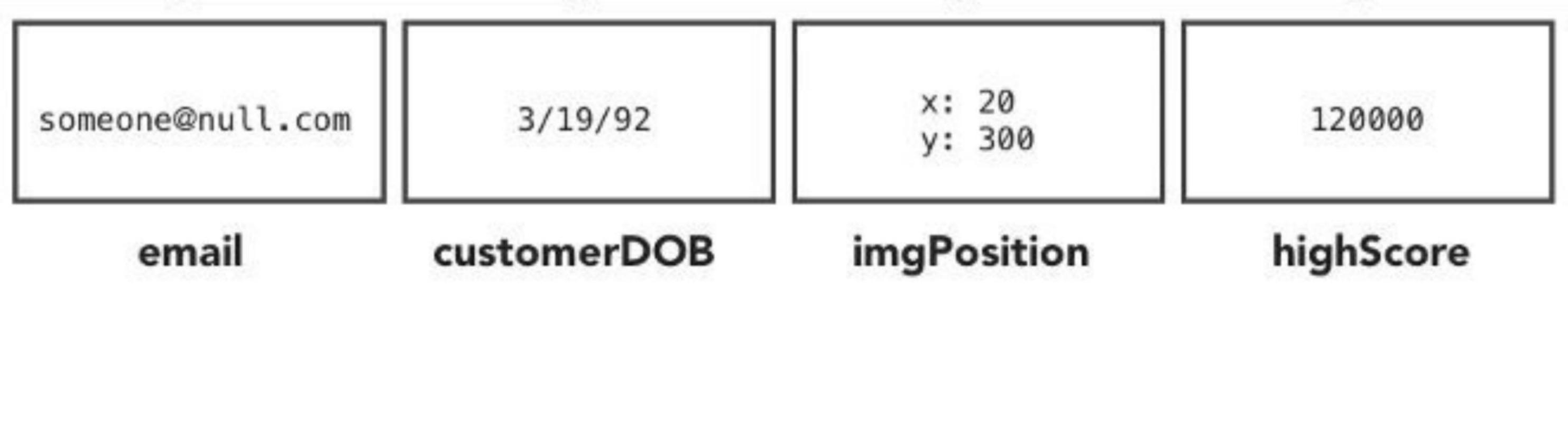
```javascript
myFunction();



function myFunction() {
    // lots of code
    myOtherFunction();
}



function myOtherFunction() {
    // lots of code
}
```

```
function myFunction (    x,y   ) {
    var myVar = x * y;
    console.log(myVar);
    // we can return values
    return myVar;
}
```

```javascript
function simpleFunction() {
    // lots of code
    var foo = 500;      local variable
    // lots of code
    console.log(foo);   500
}
```

```javascript
var foo;   global variable

function simpleFunction() {
    // lots of code
    foo = 500;
    // lots of code
    console.log(foo);
}


simpleFunction();
console.log(foo);
```

someone@null.com	3/19/92	x: 20 y: 300	120000
email	**customerDOB**	**imgPosition**	**highScore**

```
var year;
var customerEmail;
var todaysDate;                    letters
                                   numbers
var foo;                           _
                                   $
var x;
var 99problems; ✗
var problems99;
```

```
var year;
var month;
var day;
```