

JavaScript First steps

Первая программа на JS

```
Untitled-1.js  index.html  x
1  <html>
2    <body>
3      <input type="button" value="Click Me" onclick="hello()"/>
4    </body>
5    <script>
6      function hello(){
7        alert('Hello world');
8      }
9    </script>
10 </html>
```

Команды и точка с запятой

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       alert('Hello');
8       alert('World');
9       alert(3 +
10      1
11      + 2);
12
13       alert("Error appears!")
14       [1, 2].forEach(alert)
15
16     }
17   </script>
18 </html>
```

Комментарии

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       // Command bellow say hello
8       alert('Hello');
9       alert('World'); // Second message output separatly.
10      /*
11         Multy strings comment
12         I can add more strings!
13      */
14
15     }
16   </script>
17 </html>
```

Переменные

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       var message;
8       message = 'Hello'; // save string in variable
9       alert( message ); // print variable value
10      var user = 'John', age = 25, message = 'Hello';
11
12      var hello = 'Hello world!';
13
14      var message;
15
16      // copy value
17      message = hello;
18
19      alert( hello ); // Hello world!
20      alert( message ); // Hello world!
21    }
22  </script>
23 </html>
```

Имена переменных

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       var myName;
8       var test123;
9
10      var $ = 1; // variable name '$'
11      var _ = 2; // variable name '_'
12
13      alert( $ + _ ); // 3
14
15      var COLOR_RED = "#F00"; // Constants
16
17      var 1a; // FORBIDDEN
18
19      var my-name; // FORBIDDEN
20
21      var имя = "Вася";
22      alert( имя ); // "Вася" !IT IS NOT FORBIDDEN BUT FORBIDDEN BY ME!
23
24      var return = 5; // error
25      alert(return);
26    }
27  </script>
28 </html>
```

Типы данных

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       // Number
8       var n = 123;
9       n = 12.345;
10
11       alert( 1 / 0 ); // Infinity
12       alert( "нечисло" * 2 ); // NaN
13
14       // String
15       var str = "Hello world!";
16       str = 'Hey again';
17
18       // Boolean
19       var checked = true;
20       checked = false;
21
22     }
23   </script>
24 </html>
```

Типы данных

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       // undefined
8       var x;
9       alert( x ); // "undefined"
10
11       //Object
12       var user = { name: "Basil" };
13     }
14   </script>
15 </html>
```

typeof

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       typeof undefined // "undefined"
8
9       typeof 0 // "number"
10
11      typeof true // "boolean"
12
13      typeof "foo" // "string"
14
15      typeof {} // "object"
16
17      typeof null // "object" (1)
18
19      typeof function(){} // "function" (2)
20    }
21  </script>
22 </html>
```

Операторы

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       var x = 1;
8       x++; // x === 2
9       ++x; // x ===3
10
11      var a = "my" + "string"; // "mystring"
12
13      alert( '1' + 2 );
14      alert( 2 + '1' );
15
16      alert( 2 - '1' );
17      alert( 6 / '2' );
18
19      alert( +1 ); // 1
20      alert( +(1 - 2) ); // -1
21    }
22  </script>
23 </html>
```

Логические операторы

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       alert( 2 > 1 ); // true
8       alert( 2 == 1 ); // false
9       alert( 2 != 1 ); // true
10
11       ar a = true;
12
13       var b = 3 > 4;
14       alert( b ); // false
15
16       alert( a == b ); // (true == false)
17     }
18   </script>
19 </html>
```

Сравнение строк

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       alert( 'B' > 'A' ); // true
8
9       alert( 'a' > 'Z' ); // true
10
11      alert( 'Banana' > 'Apple' ); // true
12      alert( 'Paul' > 'Polac' ); // true
13      alert( 'Hey' > 'Hey' ); // true
14      alert( "2" > "14" ); // true
15    }
16  </script>
17 </html>
```

Сравнение разных типов

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       alert( '2' > 1 ); // true, as 2 > 1
8       alert( '01' == 1 ); // true, as 1 == 1
9       alert( false == 0 ); // true, false became 0
10      alert( true == 1 ); // true, true became 1.
11    </script>
12  </html>
```

Сравнение разных типов

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       alert( 0 == false ); // true
8       alert( '' == false ); // true
9
10      alert( 0 === false ); // false
11    }
12 </script>
</html>
```

Alert, Prompt, Confirm

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       alert('message');
8
9       var result = prompt('How old are you?', 20);
10      alert('You are' + result + 'years old');
11
12      var isMen = confirm("Are you man?");
13      alert( isMen );
14    </script>
15  </html>
```

Условный оператор

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       var year = prompt('What year is now', '2010');
8
9       if (year != 2016) alert( 'Wrong!' );
10
11      if (year != 2016) {
12        alert( 'You are..' );
13        alert( '..wrong!' );
14      }
15
16      if (0) { // 0 => false
17        ...
18      }
19
20      if (1) { // 1 => true
21        ...
22      }
23   </script>
24 </html>
```

Else

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       var year = prompt('What year is now', '2011');
8
9       if (year == 2016) {
10        alert( 'You right!' );
11      } else {
12        alert( 'You are wrong!' );
13      }
14    </script>
15 </html>
```

Логические операции

```
1 <html>
2   <body>
3     <input type="button" value="Click Me" onclick="hello()"/>
4   </body>
5   <script>
6     function hello(){
7       alert( true || true ); // true
8       alert( false || true ); // true
9       alert( true || false ); // true
10      alert( false || false ); // false
11
12      alert( true && true ); // true
13      alert( false && true ); // false
14      alert( true && false ); // false
15      alert( false && false ); // false
16    }
17  </script>
</html>
```