Hack your future BE

JAVASCRIPT 3

Javascript is the worlds most misunderstood
programming language

— DOUGLAS CROUCKFORD

JAVASCRIPT

WHAT IS IT?

WHAT CAN IT DO?

WHAT DATA TYPES?

WHAT OPERATORS?

DATA TYPES

- Boolean

- Number

- String

- Object

- Array

- NULL

- Undefined

OPERATORS

- Equality: ==, !=, !==, ===

- Relational: >, >=, <, <=

- Arithmetic: +, -, *, /, %

- Logical: &&, ||

- Assignment: +=, -=, *=, /=

- typeof

TRUTHY VS FALSY

OBJECT.PROP
OBJECT['PROP']

SCOPE

```
IF (1 === 1) {
  LET A = 1;
  VAR B = 1;
}
CONSOLE.LOG(A);
CONSOLE.LOG(B);
```

FOR ... OF

```
LET ITTERABLE = [10, 20, 30];

FOR (LET VALUE OF ITERABLE) {
 VALUE += 1;
 CONSOLE.LOG(VALUE)'
}
```

FOR ... IN

```
LET STRING1 = "";
LET OBJECT1 = {A:1, B:2, C:3};

FOR (LET PROPERTY IN OBJECT) {
 STRING1 += PROPERTY;
}

CONSOLE.LOG(STRING1);
```

DEBUGGING

MAC: CMD + OPTION + I
WIN: CTRL + SHIFT + I
DEBUGGER;

```javascript
// THIS PROGRAM SHOULD LOG `HACKYOURFUTURE`

LET ELEMENTS = ["HACK", "YOUR", "FUTURE"];
LET RESULT = "";

FOR (LET INDEX = 0; INDEX <= ELEMENTS.LENGTH; INDEX++)
{
    RESULT += ELEMENTS[INDEX];
}

CONSOLE.LOG(RESULT);
```

STATEMENT VS EXPRESSION

EXPRESSION = EVALUATES TO VALUE

2 + 2
IF (CONDITION)
ROUND(81.75)
TRUE
FOR (VALUE OF ITERABLE)
"FOO"
WHILE(CONDITION)
8.2

FUNCTIONS

F(X) = X + 7
IF X = 2
F(2) = 2 + 7 = 9

```
FUNCTION F(X) {
  RETURN X + 7;
}

CONSOLE.LOG(F(2));
```

- String .trim()

- Math.round()

- Array.slice()

- number.toString()

WHAT

PARAMETERS & ARGUMENTS

WHY

REUSABILITY & ABSTRACTION

FUNCTION DECLARATION

```
FUNCTION SQUARE(NUMBER) {
  RETURN NUMBER * NUMBER
}
```

FUNCTION EXPRESSION

```
VAR SQUARE = FUNCTION(NUMBER) {
  RETURN NUMBER * NUMBER
}
```

```
FUNCTION MAP (FUNC, ARR) {
  VAR RESULT = [];
  VAR I;
  FOR (LET I = 0; I != ARR.LENGTH; I++) {
    RESULT[I] = FUNC(ARR[I]);
    RETURN RESULT;
  }
}

VAR F = FUNCTION(X) {
  RETURN X * X * X;
}

VAR NUMBERS = [0, 1, 2, 5, 10];
VAR CUBE = MAP(F, NUMBERS);

CONSOLE.LOG(CUBE);
```

SCOPE

```
FUNCTION MYFUNC() {
 CONST HI = 'HELLO;
 CONSOLE.LOG(HI)';
}

MYFUNC();

CONSOLE.LOG(HI);
```

```
LET X = 0;
WHILE (X < 10) { // X< 10 IS THE LOOP
CONDITION
 X++;
}


FUNCTION LOOP(X) {
 IF(X >= 10) // X >= 10 IS THE EXIT CONDITION
  RETURN;
 LOOP(X + 1);
}

LOOP(0);
```

BONUS

- Ternary operator

- parseInt()

- indexof()

- includes()

- substr()

- tolowercase()

LEARNING NEVER ENDS

- https://stackoverflow.com/

- https://developer.mozilla.org/bm/docs/Web/JavaScript

- https://www.codecademy.com/

- https://eu.udacity.com/

- https://www.freecodecamp.org/

- Paid:

    - https://www.pluralsight.com/

    - https://egghead.io/

    - https://frontendmasters.com/

- https://github.com/trending/javascript