

JS

JAVASCRIPT REFERENCE FOR BEGINNER



Essential Syntax and Fundamental Concepts

VARIABLES AND DATA TYPES:



```
// Declaring variables
let x; // Variable declaration
const PI = 3.14; // Constant declaration

// Data types
let number = 10; // Number
let string = "Hello"; // String
let boolean = true; // Boolean
let array = [1, 2, 3]; // Array
let object = { name: "John", age: 25 }; // Object
```



OPERATORS:



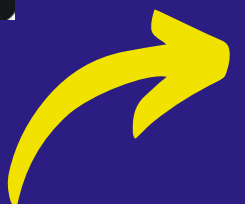
```
let x = 5;
let y = 3;

// Arithmetic operators
let sum = x + y;
let difference = x - y;
let product = x * y;
let quotient = x / y;

// Assignment operators
x += 1; // equivalent to x = x + 1;
y *= 2; // equivalent to y = y * 2;

// Comparison operators
let isEqual = x === y;
let isNotEqual = x !== y;
let isGreater = x > y;
let isLessOrEqual = x <= y;

// Logical operators
let logicalAnd = x > 0 && y < 10;
let logicalOr = x > 0 || y < 10;
let logicalNot = !logicalAnd;
```



CONTROL FLOW:

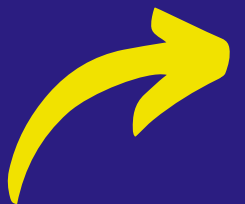
```
// Conditional statements
if (condition) {
    // code block
} else if (anotherCondition) {
    // code block
} else {
    // code block
}

// Switch statement
switch (expression) {
    case value1:
        // code block
        break;
    case value2:
        // code block
        break;
    default:
        // code block
}

// Loops
for (let i = 0; i < 5; i++) {
    // code block
}

while (condition) {
    // code block
}

do {
    // code block
} while (condition);
```



FUNCTIONS:

```

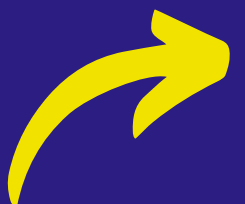
// Function declaration
function add(a, b) {
  return a + b;
}

// Function expression
const multiply = function(a, b) {
  return a * b;
};

// Arrow function
const divide = (a, b) => a / b;

// Function invocation
let result = add(2, 3);

```



ARRAYS:

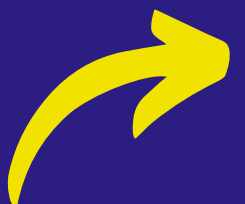


```
// Creating an array
let fruits = ["apple", "banana", "orange"];

// Accessing elements
let firstFruit = fruits[0];
let length = fruits.length;

// Modifying arrays
fruits.push("grape"); // Add element to the end
fruits.pop(); // Remove element from the end
fruits.splice(1, 1); // Remove element at index 1
fruits.reverse(); // Reverse the order of elements

// Iterating over arrays
fruits.forEach(function(fruit) {
  console.log(fruit);
});
```



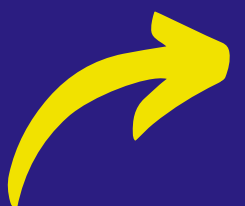
OBJECTS:



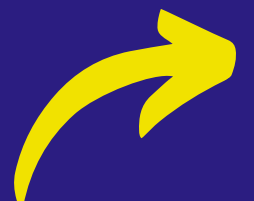
```
// Creating an object
let person = {
  name: "John",
  age: 25,
  address: {
    street: "123 Main St",
    city: "New York"
  }
};

// Accessing properties
let personName = person.name;
let city = person.address.city;

// Modifying properties
person.age = 30;
person["address"]["street"] = "456 Elm St";
```



This cheat sheet covers some fundamental concepts in JavaScript, but keep in mind that JavaScript is a versatile and powerful language with many more features and functionalities.



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