

JavaScript Cheat Sheet

for

Google Apps Script

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This cheat sheet provides a quick reference to commonly used JavaScript syntax and constructs tailored for Google Apps Script development.

Variables and Data Types

Declaring Variables:

```
var name = 'John'; // Old-school JavaScript variable (function-scoped)
let age = 25; // Preferred for block-scoped variables
const isStudent = true; // Constant value
```

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Data Types:

```
let string = 'Hello, world!'; // String
let number = 123; // Number
let boolean = true; // Boolean
let array = [1, 2, 3]; // Array
let object = {key: 'value'}; // Object
let func = function() { return 'Hello!'; }; // Function
let nullValue = null; // Null
let undefinedValue; // Undefined
```

Control Structures

If-Else Statement:

```
if (condition) {
  // code to execute if condition is true
} else {
  // code to execute if condition is false
}
```

Switch Statement:

```
switch(expression) {
  case value1:
    // Code to execute when result of expression matches value1
    break;
  case value2:
    // Code to execute when result of expression matches value2
    break;
  default:
    // Code to execute if expression doesn't match any case
}
```

For Loop:

```
for (let i = 0; i < 10; i++) {
  // Code to execute 10 times
}
```

While Loop:

```
let i = 0;
```

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```
while (i < 10) {  
  // Code to execute  
  i++;  
}
```

Functions

Function Declaration:

```
function greet(name) {  
  return 'Hello ' + name + '!';  
}
```

Function Expression:

```
const greet = function(name) {  
  return 'Hello ' + name + '!';  
};
```

Arrow Function:

```
const greet = (name) => 'Hello ' + name + '!';
```

Arrays

Creating Arrays:

```
let fruits = ['Apple', 'Banana', 'Cherry'];
```

Accessing Array Items:

```
let firstFruit = fruits[0]; // 'Apple'
```

Array Methods:

```
fruits.push('Date'); // Add an item  
let lastFruit = fruits.pop(); // Remove the last item  
let firstFruit = fruits.shift(); // Remove the first item  
fruits.unshift('Apricot'); // Add an item to the start
```

Objects

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Creating Objects:

```
let person = {  
  firstName: 'John',  
  lastName: 'Doe',  
  age: 30  
};
```

Accessing Object Properties:

```
let name = person.firstName; // Dot notation  
let age = person['age']; // Bracket notation
```

Iterating Over Objects:

```
for (let key in person) {  
  if (person.hasOwnProperty(key)) {  
    console.log(key + ": " + person[key]);  
  }  
}
```

String Manipulation

Concatenation:

```
let fullName = 'John' + ' ' + 'Doe';
```

Template Literals:

```
let fullName = `${person.firstName} ${person.lastName}`;
```

Common String Methods:

```
let length = fullName.length; // Get string length  
let upper = fullName.toUpperCase(); // Convert to upper case  
let lower = fullName.toLowerCase(); // Convert to lower case
```

Working with Dates

Creating Date Objects:

```
let now = new Date();
```

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```
let specificDate = new Date('2024-03-01T12:00:00');
```

Accessing Date Components:

```
let year = now.getFullYear();  
let month = now.getMonth(); // Note: Months are 0-indexed (0 = January, 11 =  
December)  
let day = now.getDate();
```

Error Handling

Try-Catch Block:

```
try {  
  // Code that may throw an error  
} catch (error) {  
  // Code to execute if an error occurs  
  console.error(error);  
}
```

Remember, while Google Apps Script is based on JavaScript, there are specific Apps Script services and methods that may not follow standard JavaScript syntax. Always refer to the official Google Apps Script documentation for detailed information on these services.