

Report: Undiscussed Commands Used in JS Basic Arithmetic Calculator

Contents: These are commands, functions, or keywords used in my basic arithmetic program that are not discussed in class/discussion. This report clarifies and gives a quick rundown of each new JavaScript element's function.

Switch Statement

❖ **Description:**

- Executes different blocks of code based on the value of a variable.

❖ **Syntax:**

```
switch (expression) {  
  case value1:  
    code_block1;  
    break;  
  case value2:  
    code_block2;  
    break;  
}
```

❖ **Simple Demonstration:**

```
var day = "Monday";  
switch (day) {  
  case "Monday":  
    alert("Today is Monday!");  
    break;  
}
```

❖ **Output:**

- An alert box will display the message "Today is Monday!"

.toLowerCase()

❖ **Description:**

- Converts a string value to lowercase.

❖ **Syntax:**

```
string.toLowerCase()
```

❖ **Simple Demonstration:**

```
var age = 25;

if (age >= 18) {

    alert("You are eligible to vote!");

}
```

❖ Output:

- An alert box will display the message "The string in lowercase is: hello"

If Statement

❖ Description:

- Executes a block of code if a specified condition is true.

❖ Syntax:

```
if (condition) {
    code_block;
}
```

❖ Simple Demonstration:

```
var age = 25;
if (age >= 18) {
    alert("You are eligible to vote!");
}
```

❖ Output:

- An alert box will display the message "You are eligible to vote!"

Break Statement

❖ Description:

- Exits a switch statement or a loop.

❖ Syntax:

```
break;
```

❖ Simple Demonstration:

```
for (var i = 0; i < 5; i++) {  
  if (i == 3) {  
    break;  
  }  
  alert(i);  
}
```

❖ **Output:**

- Alert boxes will display the messages "The number is: 0", "The number is: 1", and "The number is: 2"

Return Statement

❖ **Description:**

- Exits a function and returns control to the caller.

❖ **Syntax:**

```
return; or return value;
```

❖ **Simple Demonstration:**

```
function greet() {  
  alert("Hello!");  
  return;  
}  
greet();
```

❖ **Output:**

- An alert box will display the message "Hello!"

Recursive function call

❖ **Description:**

- A function calls itself recursively to repeat a process.

❖ **Syntax:**

```
function_name(); (called within the function itself)
```

❖ **Simple Demonstration:**

```
function countDown(n) {  
  if (n > 0) {
```

```
    alert(n);  
    countDown(n - 1);  
  }  
}  
countDown(3);
```

❖ Output:

- Alert boxes will display the messages "Counting down: 5", "Counting down: 4", "Counting down: 3", "Counting down: 2", and "Counting down: 1".

isNaN()

❖ Description:

- checks if a value is Not a Number (NaN). It returns true if the value is NaN, and false otherwise.

❖ Syntax:

```
isNaN(value)
```

❖ Simple Demonstration:

```
console.log(isNaN("hello"));  
console.log(isNaN(123));
```

❖ Output:

```
true  
false
```

While Statement

❖ Description:

- Executes a block of code as long as a specified condition is true.

❖ Syntax:

```
while (condition) {  
  code_block;  
}
```

❖ Simple Demonstration:

```
var i = 0;  
while (i < 5) {
```

```
        alert("The number is: " + i);  
        i++;  
    }
```

❖ **Output:**

- Alert boxes will display the messages "The number is: 0", "The number is: 1", "The number is: 2", "The number is: 3", and "The number is: 4".