

JavaScript

Basic Commands and there use

Command	Function
<code>console.log("Hello")</code>	prints hello in console
<code>alert("yoo")</code>	shows an alert in browser saying hello
<code>var a = 3</code>	used to declare variable a with value 3
<code>var b = 'Amik'</code>	used to store the string 'Amik' in variable b
<code>prompt('Enter age?')</code>	prompts message on browser and asks for user input, this value can be stored in a variable also
<code>document.getElementById('id').innerHTML = Some stuff</code>	Used to modify HTML content of a a tag

- Arithmetic operations like ++, --, += and -= are valid for numerical variables in javascript

Functions in JavaScript

To define a function you do

```
function function_name(arg_1, arg_2){  
    . . . . .  
    . . . . .  
}  
  
// to call the function do  
  
function_name(arg_1, arg_2);
```

Loops in JavaScript

```
// while loop  
var n = 10;  
while(n<20){  
    n+=1;  
    console.log(n);  
}  
  
// for loop  
var i ;  
for(let i=0; i<10;i++){ // let is also used to define variables  
    console.log(i);  
}
```

String commands in JavaScript

- `\n` is used to print a new line

first assume we define fruits as

```
var fruit = 'banana'
```

now observe various commands and outputs

Command	Output
fruit.length	6
fruit.indexOf('nan')	2
fruit.slice(2,6)	nana
fruit.replace('ban','123')	123ana
fruit.toUpperCase()	BANANA
fruit.toLowerCase	banana
fruit.charAt(3)	a
fruit [2]	n
fruit.split('')	["b","a","n","a","n","a",]

split can be used with any character like " ", "," or "!" or anything else

Array in JavaScript

- To create a new array in javascript we have two methods :

```
// method 1

let fruit = ['apple', 'kiwi'];

// method 2

fruit = new Array('apple', 'kiwi');

vegetable = ['carrot']
```

- Some other functions and there outcome

Command	Output
fruit.pop()	outputs the last element of the array and deletes it
fruit.shift()	outputs the first element of the array and deletes it
fruit.push('orange')	adds orange at the last of the array
fruit.unshift('orange')	adds orange at the first of the array
fruit.join(' * ')	apple * kiwi
fruit.toString()	apple, kiwi
fruit [fruit.length]='orange'	adds orange at the last of the array
fruit.concat(vegetable)	concatenates fruits and vegetable
fruit.reverse()	reverses the order of content in fruit
fruit.sort()	sorts content of fruit

'sort' can also take in function as in c++ to custom sort stuff example is

```
// sorts in ascending order

fruit.sort(function(a,b){
    return a-b
});

// sorts in decending order

fruit.sort(function(a,b){
    return b-a
});
```

Objects in JavaScript (dictionary)

```
let student = {
    first : 'Amik',
    last : 'Sen',
    name : function(){
        return this.first + ' ' + this.last;
    }
}

console.log(student.first); // prints Amik
console.log(student.name()); // prints Amik Sen
```

if/else and switch statement in javascript

```
// switch case

switch(num) {
  case 1:
    text = 'Case 1';
    break;
  default:
    text = 'default';
    break;
}

// if statements

if(a>=2){
  console.log('Number more than 2');
}
else{
  console.log('Number less than 2');
}
```

JSON in javascript

- The format of a JSON file is like a list of objects, which is generally uploaded in an API in the form of a string, to use that as a list again, write

```
var list = JSON.parse(students) // say student is the json file name
// now list contains the information as a list which could be used later
accordingly
```

For the remaining Check the JS files of the javascript by repo
