



Node JS Cheat Sheet

About Node JS

Node.JS is evented I/O for V8 JavaScript. It is asynchronous in nature, with handlers to I/O and other events being function callbacks. It is particularly suited to distributed computing environments with high concurrency.

- `node script.js` → Run script
- `npm install` → Install packages with npm

Global Objects

In browsers, the top-level scope is the global scope. That means that in browsers if you're in the global scope `var` something will define a global variable. In Node this is different. The top-level scope is not the global scope; `var` something inside a Node module will be local to that module.

`__filename`; → The filename of the code being executed. (absolute path)

`__dirname`; → The name of the directory that the currently executing script resides in. (absolute path)

`module`; → A reference to the current module. In particular `module.exports` is used for defining what a module exports and makes available through `require()`.

`exports`; → A reference to the `module.exports` that is shorter to type.

`process`; → The process object is a global object and can be accessed from anywhere. It is an instance of `EventEmitter`.

`Buffer`; → The Buffer class is a global type for dealing with binary data directly.

Console

`console.log([data], [...]);` → Prints to stdout with newline.

`console.info([data], [...]);` → Same as `console.log`.

`console.error([data], [...]);` → Same as `console.log` but prints to stderr.

`console.warn([data], [...]);` → Same as `console.error`.

`console.dir(obj);` → Uses `util.inspect` on `obj` and prints resulting string to stdout.

`console.time(label);` → Mark a time.

Modules

`var module = require('./module.js');` → Loads the module `module.js` in the same directory.

`module.require('./another_module.js');` → Load `another_module` as if `require()` was called from the module itself.

```
for eg- exports.area = function (r) {  
    return Math.PI * r * r;  
};
```

Process

`process.on(SIGNAL, callback)` → Signal events emitted when process receives a signal

`exit` → Process is about to exit

`uncaughtException` → Exception bubbled back to event loop

Properties: `process.stdout` → A writable stream to stdout.

`process.stderr` → A writable stream to stderr.

`process.stdin` → A readable stream to stdin.

`process.argv` → An array containing the command line arguments.

`process.env` → An object containing the user environment



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File System

Use `require('fs')` to use this module. All the methods have asynchronous and synchronous forms.

`fs.readFile(fileName [,options], callback)` → Reads existing file.

`fs.writeFile(filename, data[, options], callback)` → Writes to the file. If file exists then overwrite the content otherwise creates new file.

`fs.open(path, flags[, mode], callback)` → Opens file for reading or writing.

`fs.rename(oldPath, newPath, callback)` → Renames an existing file.

`fs.mkdir(path[, mode], callback)` → Creates a new directory.

`fs.readdir(path, callback)` → Reads the content of the specified directory.

`fs.exists(path, callback)` → Determines whether the specified file exists or not.

`fs.appendFile(file, data[, options], callback)` → Appends new content to the existing file

Path

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HTTP

To use the HTTP server and client one must require('http').

`http.STATUS_CODES;` → A collection of all the standard HTTP response status codes, and the short description of each.

`http.request(options, [callback]);` → This function allows one to transparently issue requests.

`http.get(options, [callback]);` → Set the method to GET and calls `req.end()` automatically.

`server = http.createServer([requestListener]);` // Returns a new web server object. The requestListener is a function which is automatically added to the 'request' event.

`server.listen(path, [callback]);` → Start a UNIX socket server listening for connections on the given path.

`server.setTimeout(msecs, callback);` → Sets the timeout value for sockets, and emits a 'timeout' event on the Server object, passing the socket as an argument, if a timeout occurs.

`server.on('request', function (request, response) {});` → Emitted each time there is a request.

`server.on('connection', function (socket) {});` → When a new TCP stream is established.

`server.on('close', function () {});` → Emitted when the server closes.

`request.write(chunk, [encoding]);` → Sends a chunk of the body.

`request.end([data], [encoding]);` → Finishes sending the request. If any parts of the body are unsent, it will flush them to the stream.

`request.abort();` → Aborts a request.

`response.write(chunk, [encoding]);` → This sends a chunk of the response body.

`response.writeHead(statusCode, [reasonPhrase], [headers]);` → Sends a response header to the request.

`response.setHeader(name, value);` → Sets a single header value for implicit headers. If this header already exists in the to-be-sent headers, its value will be replaced. Use an array of strings here if you need to send multiple headers with the same name.