

# Modules

## Import Javascript modules with the require function

In Node.js, the `require` function can be used to import code from another file into the current script.

```
var moduleA = require( "./module-a.js" );

// The .js extension is optional
var moduleA = require( "./module-a" );
// Both ways will produce the same result.

// Now the functionality of moduleA can be used
console.log(moduleA.someFunctionality)
```

## Intermediate Javascript: Export Module

To make an object in our Javascript file exportable as a module in Node.js, we assign the object to the `exports` property of `module`.

```
let Course = {};
Course.name = "Javascript Node.js"
module.exports = Course;
```

## Javascript export default

As of ES6, the *export default* keywords allow for a single variable or function to be exported, then, in another script, it will be straightforward to import the default export.

After using the *export default* it is possible to import a variable or function without using the `require()` function.

```
// module "moduleA.js"
export default function cube(x) {
  return x * x * x;
}

// In main.js
import cube from './moduleA.js';
// Now the `cube` function can be used straightforwardly.
console.log(cube(3)); // 27
```

## Using the import keyword in Javascript

As of ES6, the `import` keyword can be used to import functions, objects or primitives previously exported into the current script.

There are many ways to use the `import` keyword, for example, you can import all the exports from a script by using the `*` selector as follows: `import * from 'module_name';`

A single function can be imported with curly brackets as follows: `import {funcA} as name from 'module_name';`

Or many functions by name: `import {funcA, funcB} as name from 'module_name';`

```
// add.js
export const add = (x, y) => {
  return x + y
}
```

```
// main.js
import { add } from './add';
console.log(add(2, 3)); // 5
```