

Namaste Node.jsChapter - 04 — Module Export and Require

- Every node.js application has a single entry point.
- So, if some code (file or folders or modules) required in some other module how do we achieve this?

it can be solved by using
 "require ("filename")"; keyword
 whenever the filename needs to be used.

a global function used for using one module into another.

- if the other module contained some function and we need to use it (We can't use the variables, methods, and functions of one module into another by only using require ("filename").)
 (more correctly filepath)

⇒ Modules protect their variables and functions from leaking.
 what's the solution, if we want to use it.

- we need to explicitly export those

variables and methods.

e.g. first module

```
function calculateSum(a,b){  
  const sum = a+b;  
  console.log(sum);  
}
```

```
module.exports =  
  calculateSum
```

using module

```
const calculateSum =  
  require("./first-module.js")  
  // importing the  
  exported function
```

```
calculateSum(20,30);
```

- These can be written in other ways as well (destructuring, other methods of exporting and importing) (Real ways)

→ These patterns we have used are known as CommonJS modules.

CommonJS Modules (cjs)

→ `module.exports = {
 calculateSum
}`

→ `require("filepath")`

• by default used in Node.js

ES Modules (esm) (mjs)

→ `import
export`

(`a.package.json` is needed for type change of modules)

• by default used in React, Angular.

→ older way

→ works in synchronous way

→ code works in non strict mode
e.g. $z = \text{"Hello"}$ ✓
works ✓

→ newer way

(may be in coming years this will be the only standard)

→ works in Asynchronous way (better way)

→ code works in strict mode.

e.g., $z = \text{"Hello"}$ ✗
✗ z is not defined (Error)

Q) What is module exports?

A) It is an empty object {}
so, we can also write

e.g., `module.exports.calculateSum = calculateSum`

Separation of concerns will need to make different modules for different functionalities which makes our app much larger but easier to understand and navigate

Q1 What do you mean by module?

A) → Module is a collection of code which is private and independent to itself.

→ More like its local.