

## Two Module Systems Exist

Feature ES Modules (ESM) Node.js CommonJS (CJS)

Syntax import / export require() / module.exports

Introduced Modern JavaScript Old Node.js system

Enabled by "type": "module" in package.json Default behavior in Node

File extension .mjs or .js (with type:module) .js

Execution time Static (checked before run) Dynamic (runtime)

### ■ ES Modules (import/export)

Used in modern JS + Express (new way)

Export

```
export function home() {}  
export const name = "Malaika";  
export default function(){};
```

Import

```
import home, { name } from "./file.js";
```

### ■ Supports default + named exports

### ■ Faster because Node analyzes imports before running code

### ■ Works like browser JavaScript

### ■ Must use "type": "module" in package.json

### ■ CommonJS (Node.js default way)

Export

```
module.exports = {  
  home: function() {},  
  name: "Malaika"  
};
```

Or default style:

```
module.exports = function() {};
```

Import

```
const { home, name } = require("./file");
```

### ■ Default in Node.js

### ■ Good for older projects

### ■ No native export default — you simulate it

### ■ Dynamic, slower in large apps

### ■ Key Difference in Export Style

Concept ES Modules CommonJS

Default Export export default func module.exports = func

Named Export export { func } exports.func = func

Import Default import func from const func = require()

Import Named import { func } from const { func } = require()

Timing Static (compile time) Dynamic (runtime)

### ■ Real Example Comparison

### ■ ESM

```
home.js  
export default function home() {
```

```
return "Home Page";
}
export function contact() {
return "Contact Page";
}
```

```
server.js
import express from "express";
import home, { contact } from "./home.js";
```

#### ■ CommonJS

```
home.js
function home() {
return "Home Page";
}
function contact() {
return "Contact Page";
}
module.exports = { home, contact };
```

```
server.js
const express = require("express");
const { home, contact } = require("./home");
```

#### ■ Easy Memory Trick

If you say... Use

"I want modern JS like React" ■ ES Modules

"My project is old Node" ■ CommonJS

#### ■ Final Answer (Simple Words)

ES Modules uses import/export — modern, faster, browser-friendly.

Node.js modules use require/module.exports — old system, still supported.

You are learning Express — so prefer ES Modules now ■