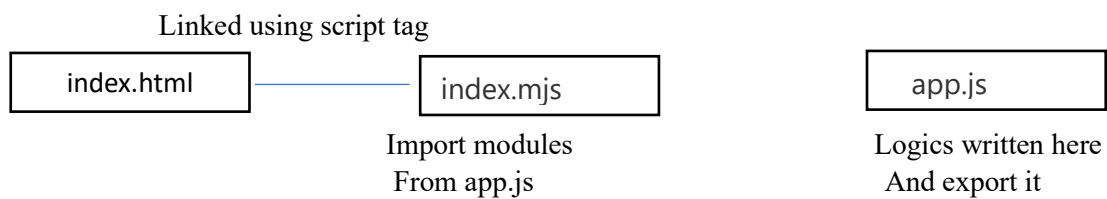


MODULES :

- It is ES6 feature.
- Modules are used to break our code into separate files. This helps to maintain a code base.
- Modules are exported from external file.
- Exported modules are imported with import statements.



index.html :

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <script src="./index.mjs" type="module"></script>
  <!-- browser wont understand this module so we need specify type="module" -->
</body>
</html>
```

Note : Browser will not understand modules. So in modules it is mandatory to mention **type = "module"** inside the script tag of index.html as shown above

Exporting and importing a module :

Exporting a module :

- JS allows us to export a variables, functions, objects by using the export keyword.
- There are 2 types of exports
 - a) Named Exports :
 - ✓ In named exports we can export multiple module.

- ✓ We are exporting modules (variable, functions, objects) with their name.
- ✓ Named exports are imported using { } ({} indicates destructuring)
- ✓ **Note :** In named exports while importing the modules we have to import it by their names and { } mandatory.

b) Default Exports:

- ✓ Only one default export in a file.
- ✓ While importing default exported module we can give any name.

Importing a module :

- To import a module, we need to use the import keyword.
- To import the modules we need to specify the path .
- When you import the **named** export, you must have to use the same name as the corresponding object inside { }.
- When you import the **default** export, we can give any name.

Named importing and exporting

Ex : In-line individually exporting

app.js

example for variables

```
export let course = "Java Fullstack"
export let technology = "React JS"
```

index.mjs

```
import { course, technology } from "./app.js"
console.log(course);
console.log(technology);
```

Example for function

app.js

```
export let message = () => {  
  console.log("Please concentrate students");  
}
```

```
export let add = (a, b) => a + b;
```

index.mjs

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

Ex : Exporting all at once

app.js

example for variables

```
let course = "Java Fullstack"  
let technology = "React JS"
```

```
export {course, technology}
```

index.mjs

```
import { course, technology } from './app.js'  
console.log(course);  
console.log(technology);
```

Example for function.

app.js

```
let message = () => {  
  console.log("Please concentrate students");  
}
```

```
let add = (a, b) => a + b;
```

```
export {message,add}
```

index.js

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

Default importing and exporting

Examples for variables

app.js

```
let name = "Ram"  
export default name;
```

index.js

```
//we can give any variable name while importing  
//Here in a , name variable is stored  
//So if we console.log(a) we get "Ram"  
import a from "./app.js"  
console.log(a);
```

Example for function

app.js

```
let fun = () => {  
  console.log("hiiii");  
}  
export default fun;
```

index.mjs

```
//we can give any variable name while importing  
//Here in b , fun function is stored  
//So if call b(), fun function is called  
//we will get output as hiii
```

```
import b from "./app.js"  
b()
```

Note : In index.js file while importing modules from any file it is mandatory to mention **.js** extension that is **“./app.js”**