



SNS COLLEGE OF ENGINEERING

Kurumbapalayam(Po), Coimbatore – 641 107

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University, Chennai

DEPARTMENT OF COMPUTER SCIENCE AND TECHNOLOGY

Course Code and Name : 19TS601 FULL STACK DEVELOPMENT

Unit 1 : JAVASCRIPT AND BASICS OF MERN STACK

Topic : Modules





Modules

- JavaScript modules allow you to break up your code into separate files.
- This makes it easier to maintain a code-base.
- Modules are imported from external files with the `import` statement.
- Modules also rely on `type="module"` in the `<script>` tag



```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Modules</h1>
<p id="demo"></p>
<script type="module">
import message from "./message.js";
document.getElementById("demo").innerHTML = message();
</script>
</body>
</html>
```



Output

- **JavaScript Modules**
- Jesse is 40 years old.



Export



- Modules with **functions** or **variables** can be stored in any external file.
- There are two types of exports: **Named Exports** and **Default Exports**.



Named Exports



- Create a file named `person.js`, and fill it with the things we want to export.
- We can create named exports two ways. In-line individually, or all at once at the bottom



In-line individually:

person.js

```
export const name = "Jesse";  
export const age = 40;
```

- All at once at the bottom:

person.js

```
const name = "Jesse";  
const age = 40;  
export {name, age};
```



Default Exports

- Create another file, named `message.js`, and use it for demonstrating default export.
- One default export in a file



Example

message.js



- ```
const message = () => {
 const name = "Jesse";
 const age = 40;
 return name + ' is ' + age + 'years old.';
};

export default message;
```



# Import



- Import modules into a file in two ways, based on if they are named exports or default exports.
- Named exports are constructed using curly braces. Default exports are not.



- Import from named exports
- Import named exports from the file person.js:
- `import { name, age } from "./person.js";`



```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Modules</h1>
<p id="demo"></p>
<script type="module">
import { name, age } from "./person.js";
let text = "My name is " + name + ", I am " + age + ".";
document.getElementById("demo").innerHTML = text;
</script>
</body>
</html>
```



# OUTPUT

- **JavaScript Modules**
- My name is Jesse, I am 40.



- Import from default exports
- Import a default export from the file message.js:



```
<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Modules</h1>
<p id="demo"></p>
<script type="module">
import message from "./message.js";
document.getElementById("demo").innerHTML = message();
</script>
</body>
</html>
```



# Output

- **JavaScript Modules**
- Jesse is 40 years old.

## Note

- Modules only work with the HTTP(s) protocol.
- A web-page opened via the file:// protocol cannot use import / export.





# ASSESSMENT

1. What is Modules?



## **Text Book:**

1. Pro MERN Stack, Full Stack Web App Development with Mongo, Express, React, and Node, Vasan Subramanian, A Press Publisher, 2019.

## **Reference:**

David Flanagan, “Java Script: The Definitive Guide”, O’Reilly Media, Inc, 7 th Edition, 2020

2. Matt Frisbie, “Professional JavaScript for Web Developers” Wiley Publishing, Inc, 4<sup>th</sup> Edition, ISBN: 978-1-119-36656-0, 2019



Thank  
You!

