COURSEWARE

Modules

Contents

Overview

In Node each JS file is its own **module**. These modules are discrete collections of javascript that are kept separate in order to reduce coupling and increase cohesion.

Exporting modules

First, I will create a very simple module that simply finds the current date and time:

▶ now.js

At the moment this module doesn't do us any good as all the variables are local to the module itself.
If we want to make these variables available elsewhere we are going to need to **export** them.

Exporting data in Node is done via the **module.exports** object - simply place any value inside this object and it will be available when the modules is imported elsewhere:

▶ now.js

Importing modules

Importing modules is very simple in Node because of the **require()** function - simply pass in the path to the desired module and **require** will pull in the **exports** object for use in the current module.

In this example I am extracting the startDate variable to a constant in index.js using **require()** and destructuring:

▶ index.js

Importing from node_modules is just as easy - simply omit the **./**

```
const chalk = require('chalk');
```

Tutorial

There is no tutorial for this module.

Exercises

1. Create a new folder called *modules-practice* - initialise this as a new NPM package.

▶ Click here for solution

2. Create two files - *index.js* and *cow.js*.
3. Install the **cowsay** package.

▶ Click here for solution

4. Import the **cowsay** module into *cow.js* - assign this value to a constant of your choosing.

▶ Click here for solution

5. Create a function in cow.js that takes in a string and passes it into the **say** function from the cowsay object.

(For guidance on how to format this data please consult the cowsay docs on https://www.npmjs.com/package/cowsay)

▶ Click here for solution

6. Assign this function to a variable - export that variable.

▶ Click here for solution

7. Import this new function into *index.js*.

▶ Click here for solution

8. Create a start script in package.json that runs *index.js*

▶ Click here for solution

9. Try calling this function with various strings.

▶ Click here for solution

Bonus: Experiment with different configurations for the **say** function.