Node.js Modules

- Module is a set of functions. (think about js libraries such as Math).

- 3 types of modules
1. Local Modules (own created modules)
2. Built-in Modules (node.js own modules) – http, url, path, fs, (no need to install)
3. External modules (managed by npm)

instruction.txt   JS index.js   JS student.js ✕

Lesson1 > JS student.js > ...

```javascript
 5    const getAge = () => {
 6        return "25";
 7    }
 8
 9    const cgpa = 3.92;
10    💡
11    exports.getName = getName;
12    exports.getAge = getAge;
13    exports.result = cgpa;
```

TERMINAL   PROBLEMS   OUTPUT   DEBUG CONSOLE   2: powershell

```
Anisul Islam
PS C:\Users\Anisul Islam\Dropbox\full stack\back end\Node Tutorial\NodeBasic\Lesson1> node index.js
Anisul Islam
25
PS C:\Users\Anisul Islam\Dropbox\full stack\back end\Node Tutorial\NodeBasic\Lesson1> node index.js
Anisul Islam
25
3.92
PS C:\Users\Anisul Islam\Dropbox\full stack\back end\Node Tutorial\NodeBasic\Lesson1>
```

master*   ⊗ 0 ⚠ 0   Ln 11, Col 1 (76 selected)   Spaces: 4   UTF-8   CRLF   Babel JavaScript   Go Live   Prettier   8:14 PM 10/28/2020

File   Edit   Selection   View   Go   Run   Terminal   Help

instruction.txt   JS index.js   JS student.js ✕

Lesson1 > JS student.js > [∅] <unknown> > ⦚ cgpa

```javascript
10
11    // exports.getName = getName;
12    // exports.getAge = getAge;
13    // exports.result = cgpa;
14
15    module.exports = {
16        getName,
17        getAge,
18        cgpa
19    }
```

TERMINAL   PROBLEMS   OUTPUT   DEBUG CONSOLE

2: powershell

```
Anisul Islam
PS C:\Users\Anisul Islam\Dropbox\full stack\back end\Node Tutorial\NodeBasic\Lesson1> node index.js
Anisul Islam
25
PS C:\Users\Anisul Islam\Dropbox\full stack\back end\Node Tutorial\NodeBasic\Lesson1> node index.js
Anisul Islam
25
3.92
PS C:\Users\Anisul Islam\Dropbox\full stack\back end\Node Tutorial\NodeBasic\Lesson1>
```

master*   ⟳   ⊗ 0 ⚠ 0   Ln 18, Col 9   Spaces: 4   UTF-8   CRLF   Babel JavaScript   Go Live   Prettier

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instruction.txt   JS index.js   ×   JS student.js

Lesson1 > JS index.js > ...

```js
1    const s1 = require('./student');
2
3    console.log(s1.getName());
4    console.log(s1.getAge());
5    console.log(s1.cgpa);
```

TERMINAL   PROBLEMS   OUTPUT   DEBUG CONSOLE   2: powershell

```
PS C:\Users\Anisul Islam\Dropbox\full stack\back end\Node Tutorial\NodeBasic\Lesson1> node index.js
Anisul Islam
25
undefined
PS C:\Users\Anisul Islam\Dropbox\full stack\back end\Node Tutorial\NodeBasic\Lesson1> node index.js
Anisul Islam
25
3.92
PS C:\Users\Anisul Islam\Dropbox\full stack\back end\Node Tutorial\NodeBasic\Lesson1>
```

master*   0 0   Ln 5, Col 20   Spaces: 4   UTF-8   CRLF   Babel JavaScript   Go Live   Prettier

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instruction.txt   JS index.js ✕   JS student.js

Lesson1 > JS index.js > …

```javascript
1    const {getName} = require('./student');
2
3    console.log(getName());
4
```

TERMINAL   PROBLEMS   OUTPUT   DEBUG CONSOLE   2: powershell

```
?[90m    at Module._compile (internal/modules/cjs/loader.js:1075:30)?[39m
?[90m    at Object.Module._extensions..js (internal/modules/cjs/loader.js:1096:10)?[39m
?[90m    at Module.load (internal/modules/cjs/loader.js:940:32)?[39m
?[90m    at Function.Module._load (internal/modules/cjs/loader.js:781:14)?[39m
?[90m    at Function.executeUserEntryPoint [as runMain] (internal/modules/run_main.js:72:12)?[39m
?[90m    at internal/main/run_main_module.js:17:47?[39m
PS C:\Users\Anisul Islam\Dropbox\full stack\back end\Node Tutorial\NodeBasic\Lesson1> node index.js
Anisul Islam
PS C:\Users\Anisul Islam\Dropbox\full stack\back end\Node Tutorial\NodeBasic\Lesson1>
```

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instruction.txt   JS index.js   JS student.js ●

Lesson1 > JS student.js > ⊗ getName

```javascript
1  exports.getName = () =>{
2      return "Anisul Islam";
3  }
4
5  const getAge = () => {
6      return "25";
7  }
8
9  const cgpa = 3.92;
10
```

TERMINAL   PROBLEMS   OUTPUT   DEBUG CONSOLE   2: powershell

```
?[90m    at Module._compile (internal/modules/cjs/loader.js:1075:30)?[39m
?[90m    at Object.Module._extensions..js (internal/modules/cjs/loader.js:1096:10)?[39m
?[90m    at Module.load (internal/modules/cjs/loader.js:940:32)?[39m
?[90m    at Function.Module._load (internal/modules/cjs/loader.js:781:14)?[39m
?[90m    at Function.executeUserEntryPoint [as runMain] (internal/modules/run_main.js:72:12)?[39m
?[90m    at internal/main/run_main_module.js:17:47?[39m
PS C:\Users\Anisul Islam\Dropbox\full stack\back end\Node Tutorial\NodeBasic\Lesson1> node index.js
Anisul Islam
PS C:\Users\Anisul Islam\Dropbox\full stack\back end\Node Tutorial\NodeBasic\Lesson1>
```

master*   ⊗ 0 ⚠ 0   Ln 1, Col 1 (55 selected)   Spaces: 4   UTF-8   CRLF   Babel JavaScript   Go Live   Prettier

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