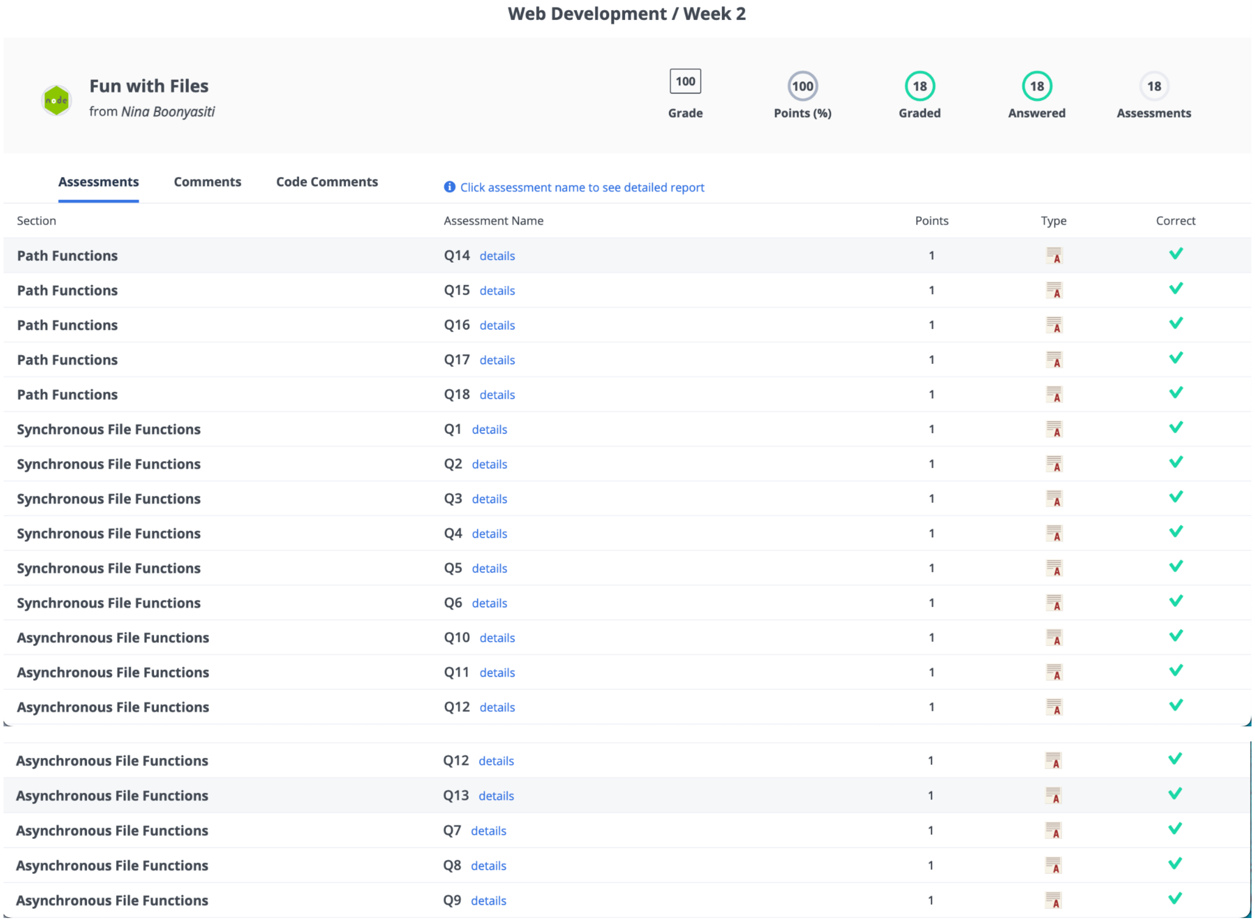
Nina Boonyasiti - 2846101
EECS 692

Assignment: [Activity] Fun with Files
Due Date: June 17th by 11:59pm
Points: 10
Description: In this exercise, we will be learning about the **node.js** libraries used to manipulate files. These are the fs (short for file system) module and the path module.

Overall Summary:



Web Development / Week 2

Fun with Files
from *Nina Boonyasiti*

Grade	Points (%)	Graded	Answered	Assessments
100	100	18	18	18

Section	Assessment Name	Points	Type	Correct
Path Functions	Q14 details	1	A	✓
Path Functions	Q15 details	1	A	✓
Path Functions	Q16 details	1	A	✓
Path Functions	Q17 details	1	A	✓
Path Functions	Q18 details	1	A	✓
Synchronous File Functions	Q1 details	1	A	✓
Synchronous File Functions	Q2 details	1	A	✓
Synchronous File Functions	Q3 details	1	A	✓
Synchronous File Functions	Q4 details	1	A	✓
Synchronous File Functions	Q5 details	1	A	✓
Synchronous File Functions	Q6 details	1	A	✓
Asynchronous File Functions	Q10 details	1	A	✓
Asynchronous File Functions	Q11 details	1	A	✓
Asynchronous File Functions	Q12 details	1	A	✓
Asynchronous File Functions	Q12 details	1	A	✓
Asynchronous File Functions	Q13 details	1	A	✓
Asynchronous File Functions	Q7 details	1	A	✓
Asynchronous File Functions	Q8 details	1	A	✓
Asynchronous File Functions	Q9 details	1	A	✓

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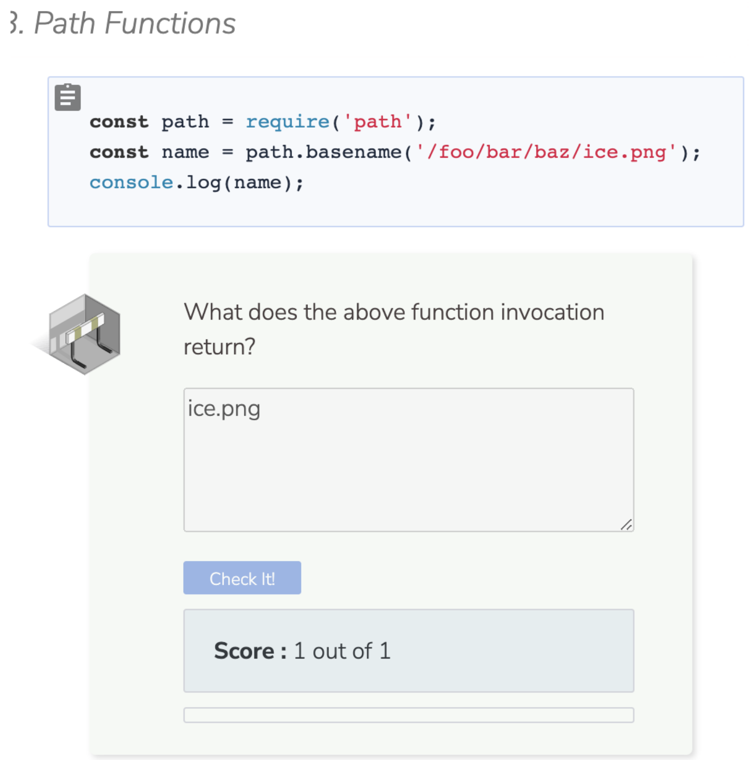
Student Submission:
To complete this assignment, students are to run the snippets of code, run them in the project terminal and report their answers according to the instructions and skills taught in the lesson.

Question 1:



3. Path Functions

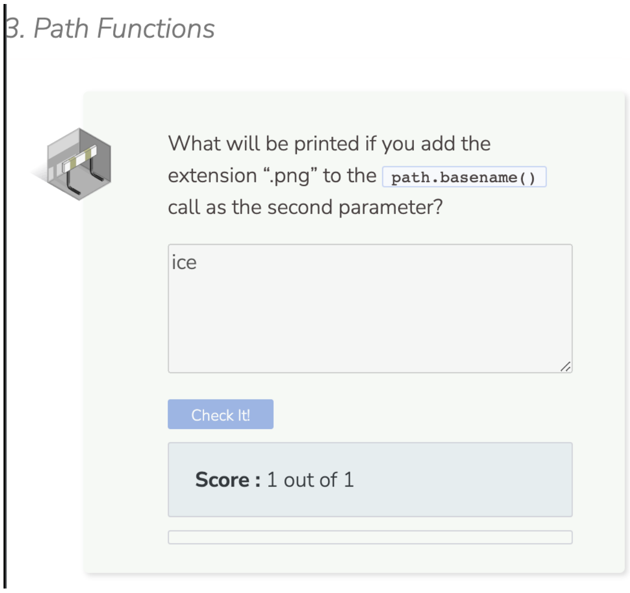
```
const path = require('path');
const name = path.basename('/foo/bar/baz/ice.png');
console.log(name);
```

What does the above function invocation return?

ice.png

Score : 1 out of 1

Question 2:



3. Path Functions

What will be printed if you add the extension ".png" to the `path.basename()` call as the second parameter?

ice

Score : 1 out of 1

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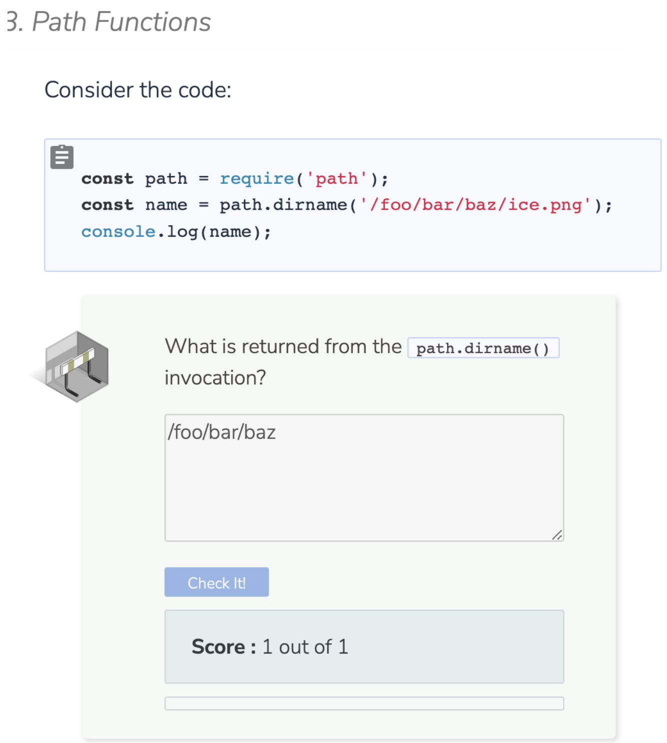
Question 3:



3. Path Functions

Consider the code:

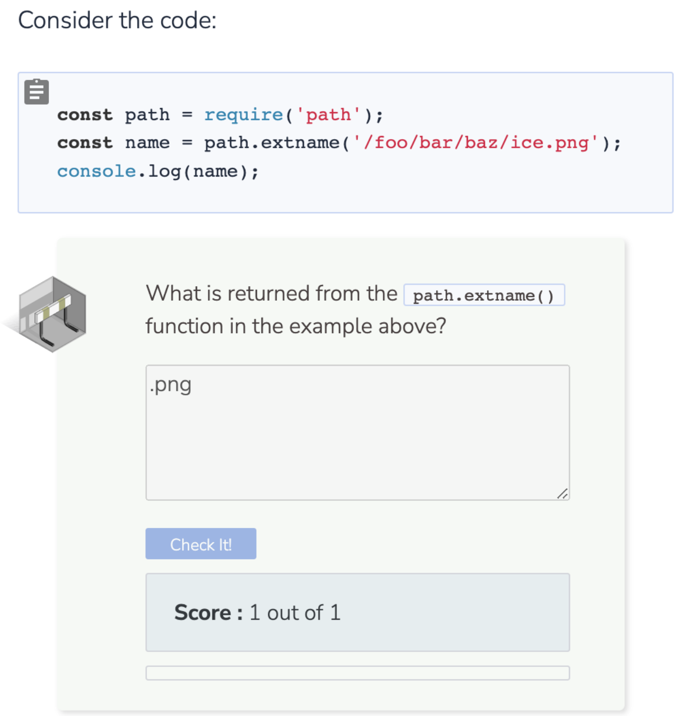
```
const path = require('path');
const name = path.dirname('/foo/bar/baz/ice.png');
console.log(name);
```

What is returned from the `path.dirname()` invocation?

/foo/bar/baz

Score : 1 out of 1

Question 4:



Consider the code:

```
const path = require('path');
const name = path.extname('/foo/bar/baz/ice.png');
console.log(name);
```

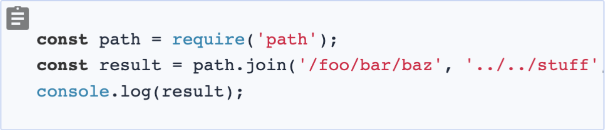
What is returned from the `path.extname()` function in the example above?

.png

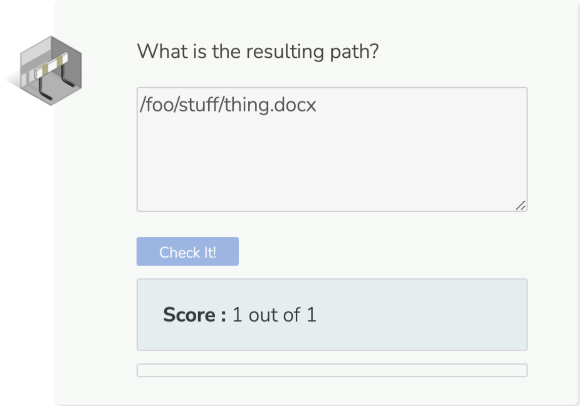
Score : 1 out of 1

Question 5:

Consider the code:



```
const path = require('path');
const result = path.join('/foo/bar/baz', '../../stuff',
console.log(result);
```



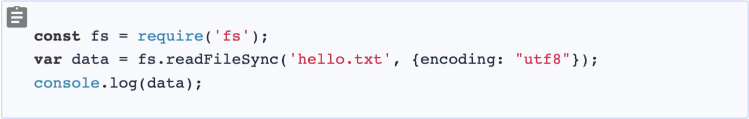
What is the resulting path?

/foo/stuff/thing.docx

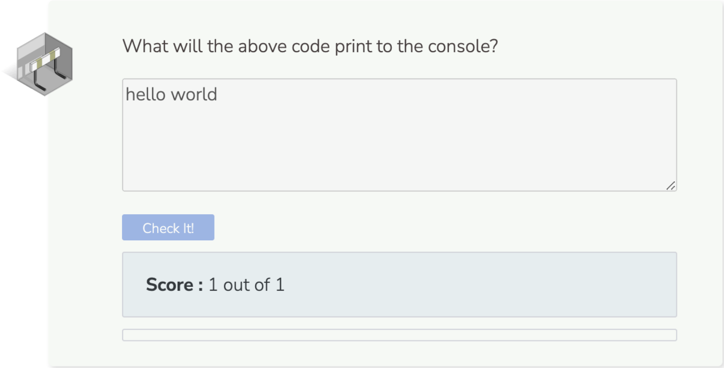
Score : 1 out of 1

Question 6:

Consider this example code:



```
const fs = require('fs');
var data = fs.readFileSync('hello.txt', {encoding: "utf8"});
console.log(data);
```



What will the above code print to the console?

hello world

Score : 1 out of 1

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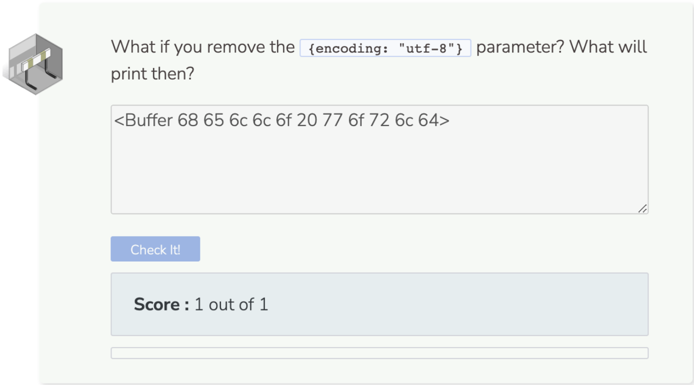
Question 7:

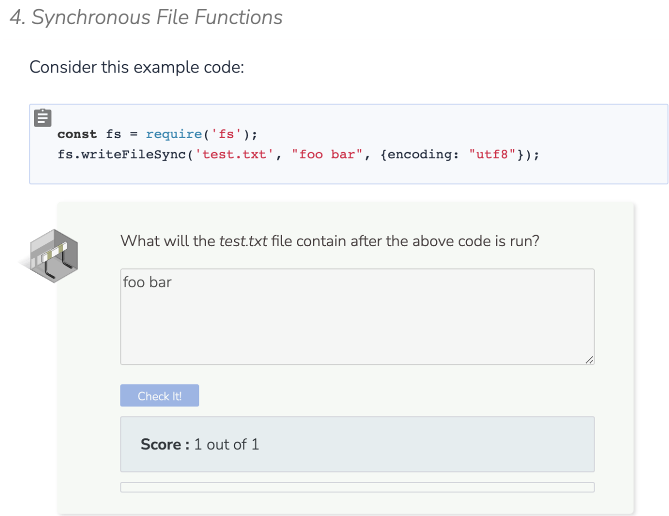


What if you remove the `{encoding: "utf-8"}` parameter? What will print then?

<Buffer 68 65 6c 6c 6f 20 77 6f 72 6c 64>

Score : 1 out of 1

Question 8:



4. Synchronous File Functions

Consider this example code:

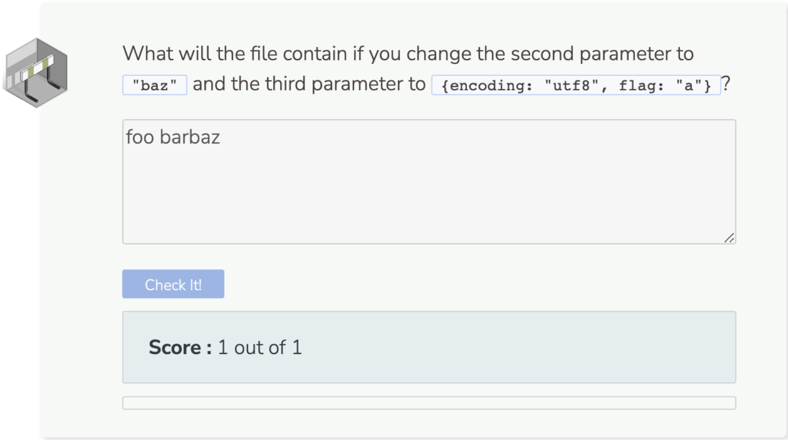
```
const fs = require('fs');
fs.writeFileSync('test.txt', "foo bar", {encoding: "utf8"});
```

What will the *test.txt* file contain after the above code is run?

foo bar

Score : 1 out of 1

Question 9:



What will the file contain if you change the second parameter to `"baz"` and the third parameter to `{encoding: "utf8", flag: "a"}`?

foo barbaz

Score : 1 out of 1

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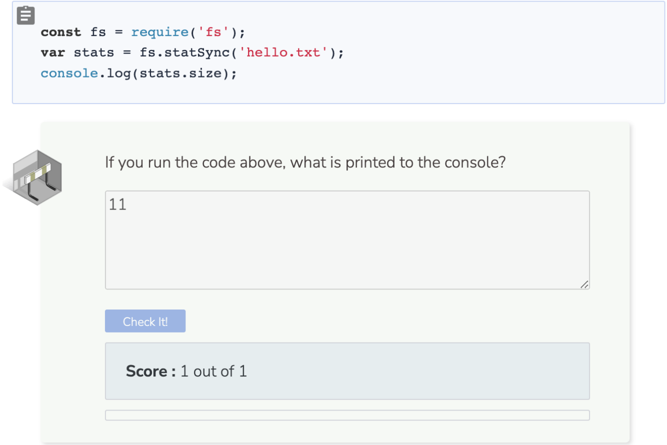
Question 10:



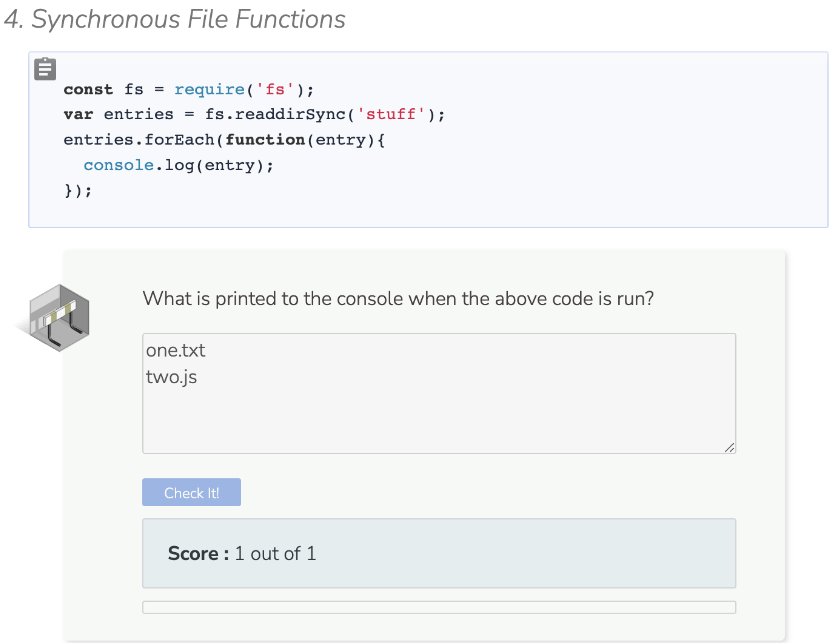
```
const fs = require('fs');
var stats = fs.statSync('hello.txt');
console.log(stats.size);
```

If you run the code above, what is printed to the console?

```
11
```

Score : 1 out of 1

Question 11:



4. Synchronous File Functions

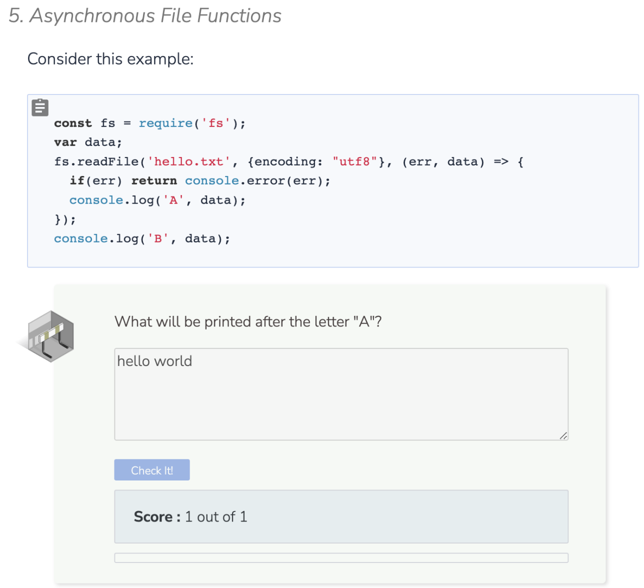
```
const fs = require('fs');
var entries = fs.readdirSync('stuff');
entries.forEach(function(entry){
  console.log(entry);
});
```

What is printed to the console when the above code is run?

```
one.txt
two.js
```

Score : 1 out of 1

Question 12:



5. Asynchronous File Functions

Consider this example:

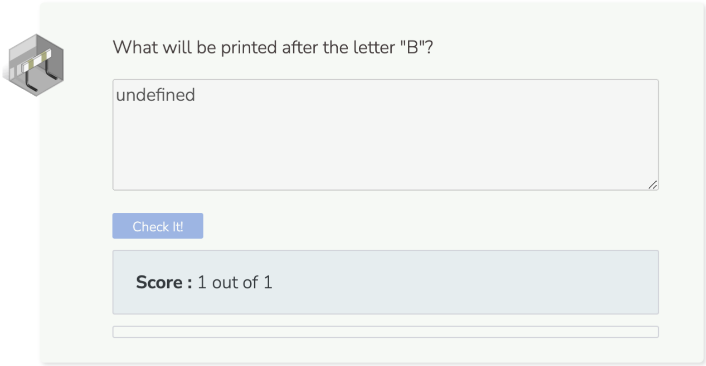
```
const fs = require('fs');
var data;
fs.readFile('hello.txt', {encoding: "utf8"}, (err, data) => {
  if(err) return console.error(err);
  console.log('A', data);
});
console.log('B', data);
```

What will be printed after the letter "A"?

hello world

Score : 1 out of 1

Question 13:

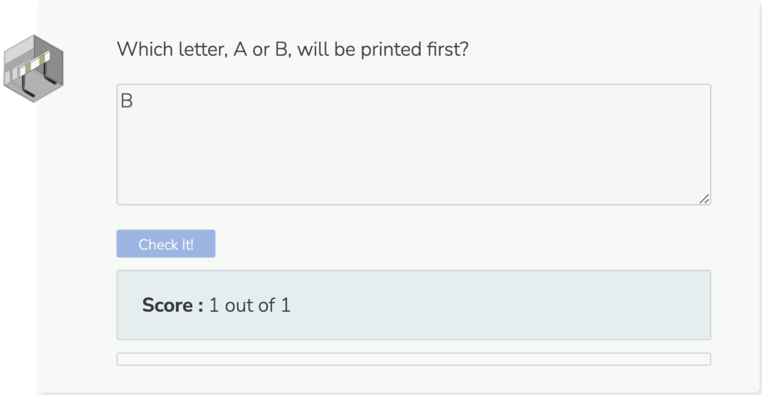


What will be printed after the letter "B"?

undefined

Score : 1 out of 1

Question 14:

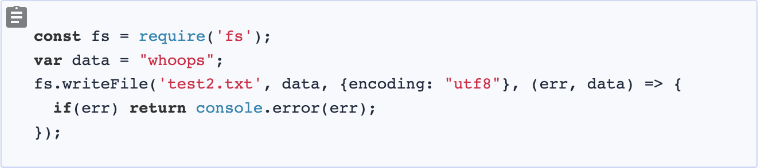


Which letter, A or B, will be printed first?

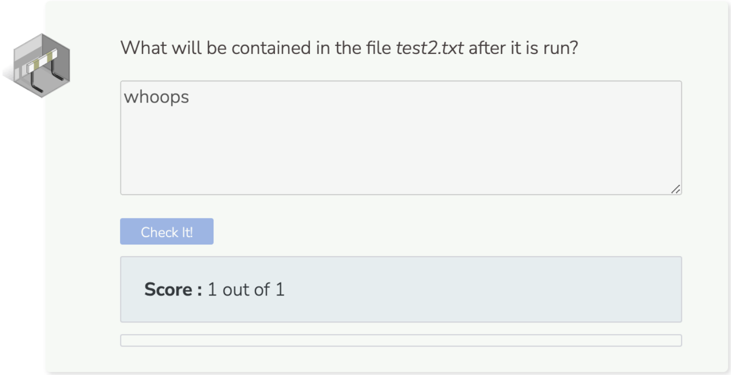
B

Score : 1 out of 1

Question 15:



```
const fs = require('fs');
var data = "whoops";
fs.writeFile('test2.txt', data, {encoding: "utf8"}, (err, data) => {
  if(err) return console.error(err);
});
```



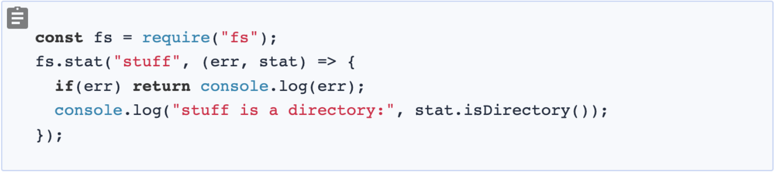
What will be contained in the file *test2.txt* after it is run?

whoops

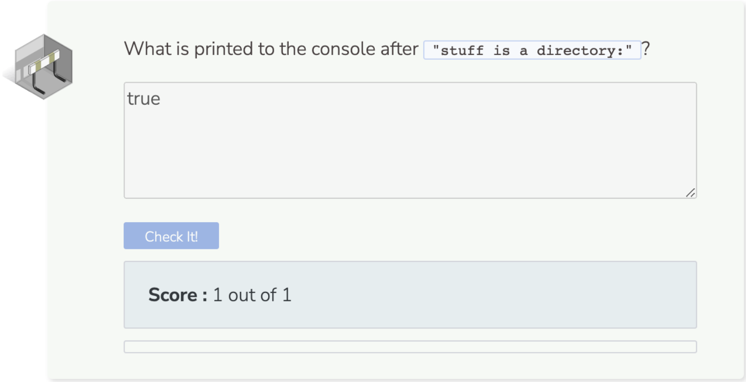
Score : 1 out of 1

Question 16:

Consider the following code:



```
const fs = require("fs");
fs.stat("stuff", (err, stat) => {
  if(err) return console.error(err);
  console.log("stuff is a directory:", stat.isDirectory());
});
```

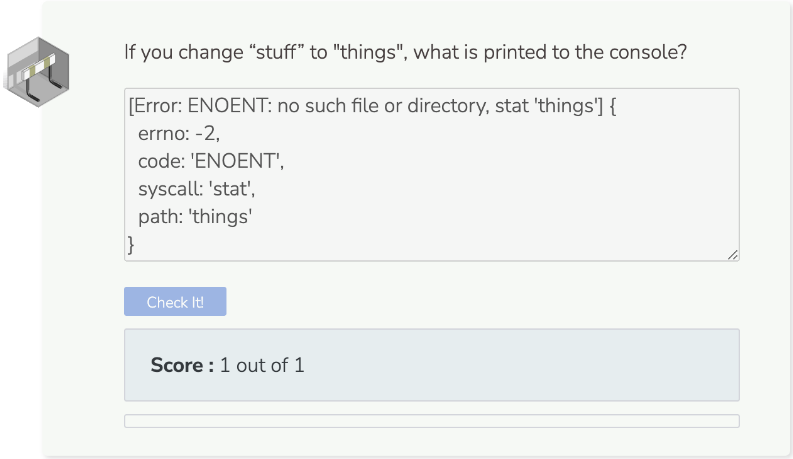


What is printed to the console after `"stuff is a directory:"`?

true

Score : 1 out of 1

Question 17:

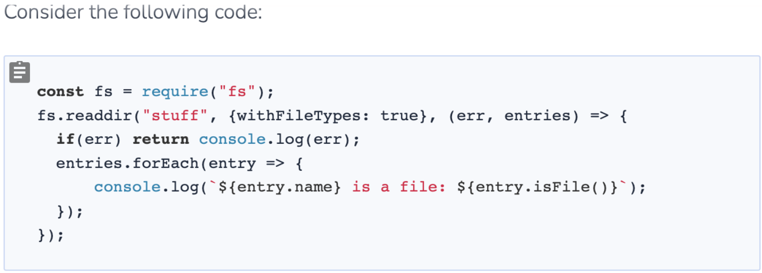


If you change “stuff” to "things", what is printed to the console?

```
[Error: ENOENT: no such file or directory, stat 'things'] {
  errno: -2,
  code: 'ENOENT',
  syscall: 'stat',
  path: 'things'
}
```

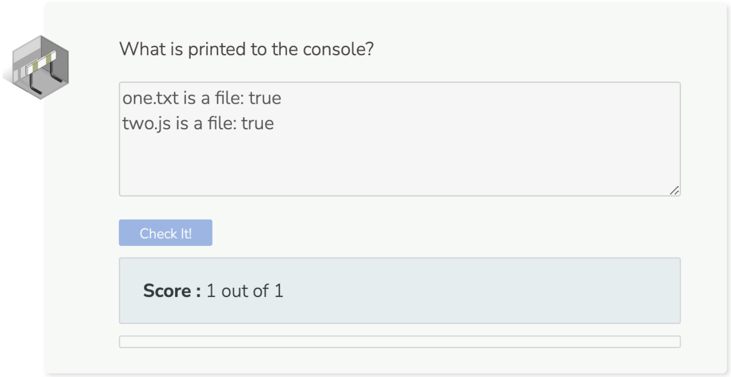
Score : 1 out of 1

Question 18:



Consider the following code:

```
const fs = require("fs");
fs.readdir("stuff", {withFileTypes: true}, (err, entries) => {
  if(err) return console.log(err);
  entries.forEach(entry => {
      console.log(`${entry.name} is a file: ${entry.isFile()}`);
  });
});
```



What is printed to the console?

```
one.txt is a file: true
two.js is a file: true
```

Score : 1 out of 1