

## Callbacks/Class 5

How can we do n tasks in the same amount of time?

We have 2 ways

### Multithreading

```
const fs = require("fs");
fs.readFile("input.txt", "utf8", (err, data) => {
  if (err) {
    console.log("error reading file");
  } else {
    console.log(data);
  }
});
```

```
console.log("hello world");
```

/\*

This is a callback function where everything in the callback occurs asynchronously. This allows you to do other things while a file is loading for instance. Waiting for each file to finish reading before moving onto another task would be inefficient.

As a task is completed, it gets placed on the queue to print.

This also means that the "hello world" statement will print first because its not a callback statement.

\*/

```
const dns = require("dns");
const domain = "venus.cs.qc.cuny.edu";

dns.resolve(domain, (err, data) => {
  if (err) {
    console.log(err);
  } else {
    console.log(data);
  }
});
```

/\*

In this code, the input is a domain and the output is an array of ip-address's

Another thing to note is that asynchronous programming doesn't have the traditional return values.

```
*/  
  
//Another way to generalize this function  
  
function resolve(domain) {  
  dns.resolve(domain, (err, data) => {  
    if (err) {  
      console.log(err);  
    } else {  
      console.log(data);  
    }  
  });  
}  
  
resolve(domain);
```