Node Modules: Callbacks and Error Handling

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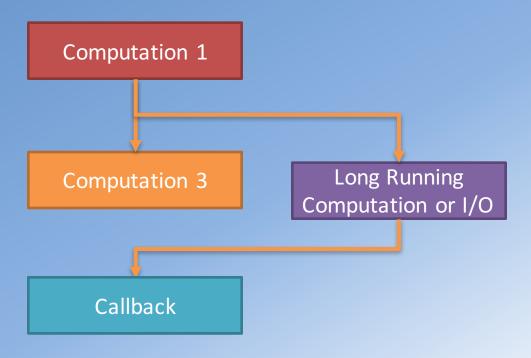
Two Salient Features of JavaScript

- First-class functions: A function can be treated the same way as any other variable
- Closures:
 - A function defined inside another function has access to all the variables declared in the outer function (outer scope)
 - The inner function will continue to have access to the variables from the outer scope even after the outer function has returned

Asynchronous Programming

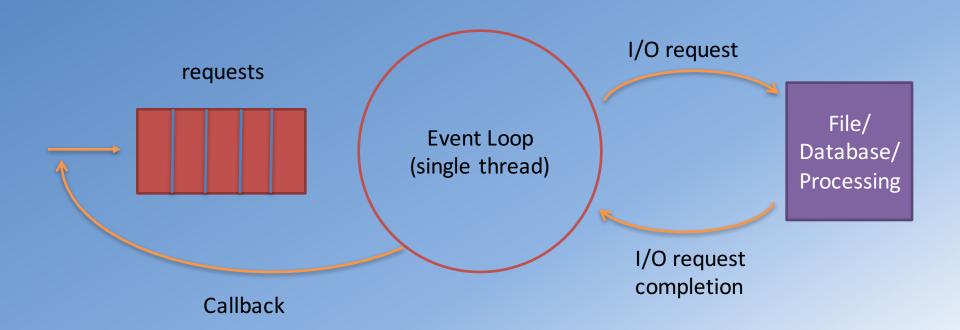


Synchronous Programming



Asynchronous Programming

Node, Async I/O and Callbacks



Callbacks and Error Handling

rectangle module:

```
module.exports = function(x,y,callback) {
try {
 if (x < 0 | | y < 0) {
   throw new Error("Rectangle dimensions should be greater than zero: I = " + x + ", and b = " + y);
 else
   callback(null, {
      perimeter: function () { return (2*(x+y)); },
      area:function () { return (x*y); }
   });
catch (error) { callback(error,null); }
```

Callbacks and Error Handling

Calling the function:

```
rect(l,b, function(err,rectangle) {
   if (err) {
       console.log(err);
   else {
```

Exercise: Node Modules: Callbacks and Error Handling

- Using Callbacks and error handling in Node applications
- Using external Node modules