FourSquare Node

Agenda

- Npm

- Install nom modules

- Axios http Request

HOME | ABOUT | DOWNLOADS | DOCS | GET INVOLVED | SECURITY | NEWS | FOUNDATION

Node.js® is a JavaScript runtime built on Chrome's V8 JavaScript engine.

Download for macOS (x64)

10.15.0 LTS
Recommended For Most Users

11.7.0 Current
Latest Features

Other Downloads | Changelog | API Docs   Other Downloads | Changelog | API Docs

Or have a look at the Long Term Support (LTS) schedule.

Sign up for Node.js Everywhere, the official Node.js Monthly Newsletter.

Install Node ➡

```
2. bash
Eamonns-MacBook-Pro:ent-web-2018 edeleastar$ node -h
Usage: node [options] [ -e script | script.js | - ] [arguments]
       node inspect script.js [arguments]

Options:
-                            script read from stdin (default if no
                             file name is provided, interactive mode
                             if a tty)
--                           indicate the end of node options
--abort-on-uncaught-exception
                             aborting instead of exiting causes a
                             core file to be generated for analysis
-c, --check                  syntax check script without executing
--completion-bash            print source-able bash completion
                             script
-e, --eval=...               evaluate script
--experimental-modules       experimental ES Module support and
                             caching modules
--experimental-repl-await    experimental await keyword support in
                             REPL
--experimental-vm-modules    experimental ES Module support in vm
                             module
--experimental-worker        experimental threaded Worker support
-h, --help                   print node command line options
                             (currently set)
--icu-data-dir=...           set ICU data load path to dir
                             (overrides NODE_ICU_DATA)
--inspect[=[host:]port]      activate inspector on host:port
                             (default: 127.0.0.1:9229)
--inspect-brk[=[host:]port]  activate inspector on host:port and
                             break at start of user script
--debug-port, --inspect-port=[host:]port
                             set host:port for inspector
-i, --interactive            always enter the REPL even if stdin
                             does not appear to be a terminal
--loader=...                 (with --experimental-modules) use the
                             specified file as a custom loader
--no-deprecation             silence deprecation warnings
--no-force-async-hooks-checks
                             disable checks for async_hooks
--no-warnings                silence all process warnings
--openssl-config=...         load OpenSSL configuration from the
                             specified file (overrides OPENSSL_CONF)
--pending-deprecation        emit pending deprecation warnings
--preserve-symlinks          preserve symbolic links when resolving
--preserve-symlinks-main     preserve symbolic links when resolving
```
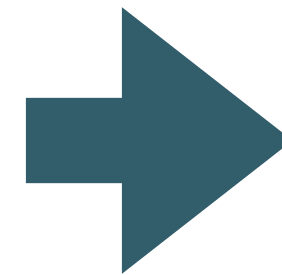
Command Line Application

npm init

Create a node app

```
mkdir four-square-prj
cd four-square-prj
npm init
```
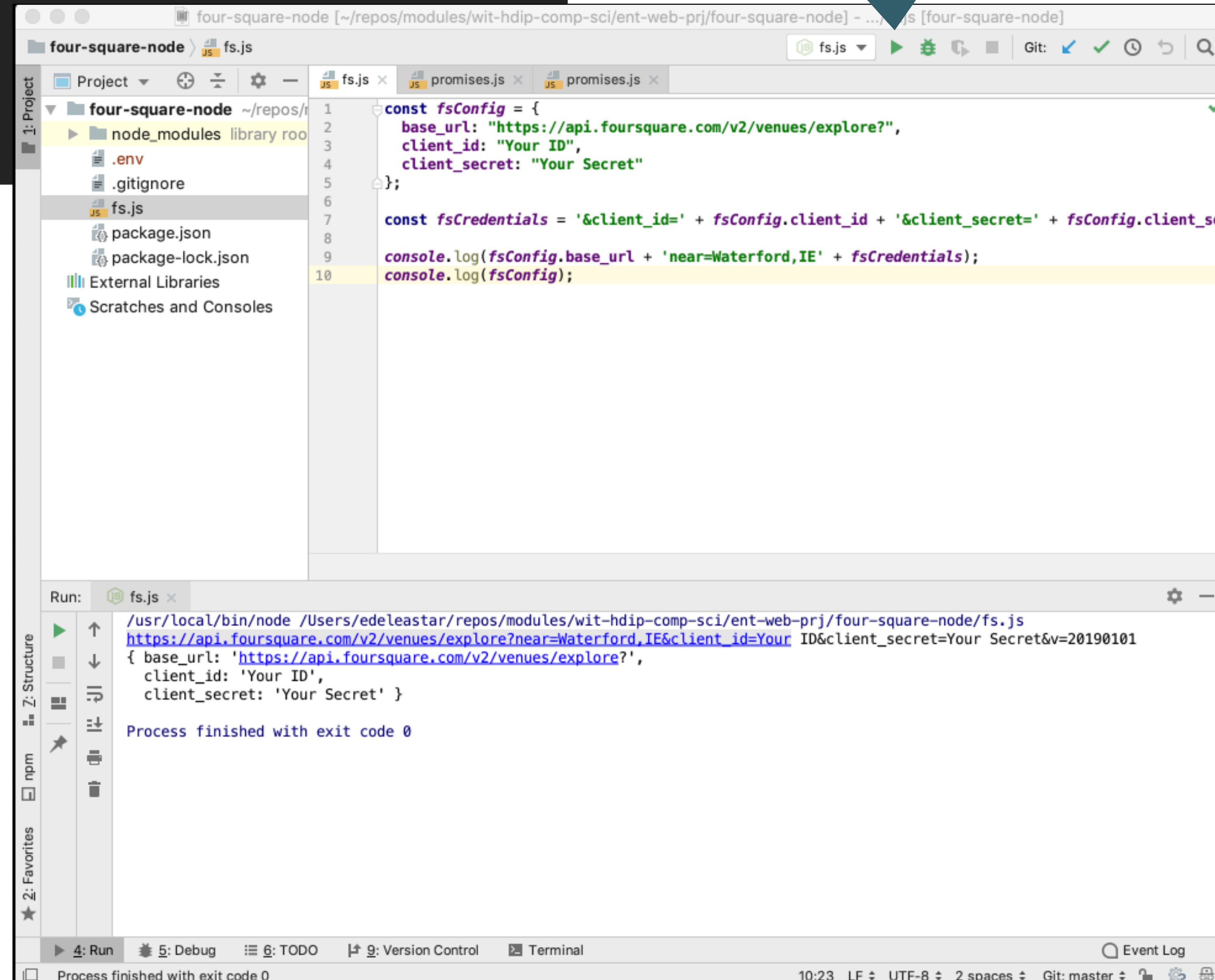
package.json

```json
{
  "name": "four-square-prj",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "author": "",
  "license": "ISC"
}
```

Create a Node Application

fs.js

```javascript
const fsConfig = {
  base_url: 'https://api.foursquare.com/v2/venues/explore?',
  client_id: 'Your ID',
  client_secret: 'Your Secret'
};

console.log(fsConfig);
```
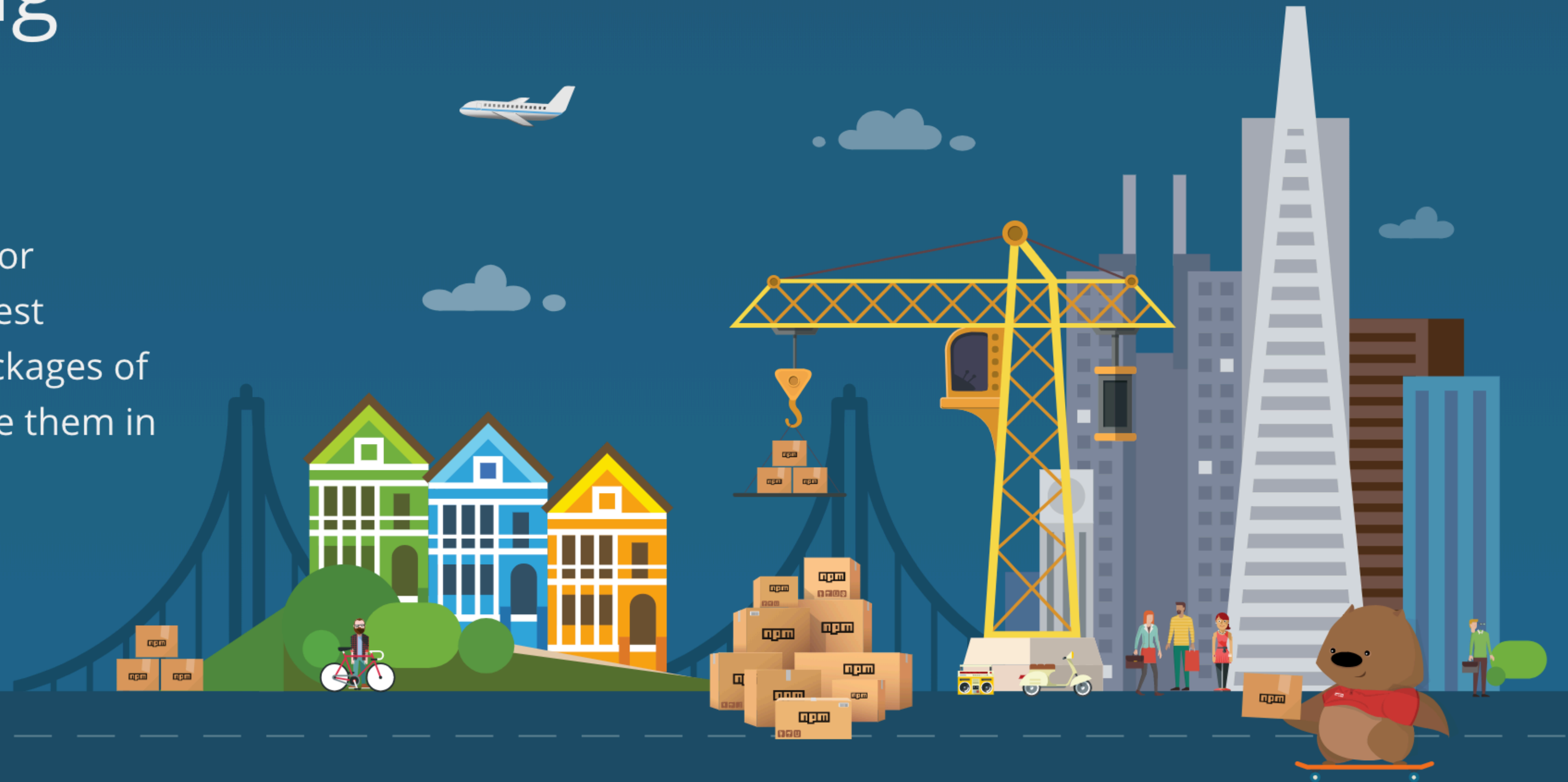
"Run" the fs.js program

Npm Modules: https://www.npmjs.com/

What is npm?

Use npm to install, share, and distribute code; manage dependencies in your projects; and share & receive feedback with others.

Install npm

What can you make with 800,000 building blocks?

The npm registry hosts the world's largest collection of free, reusable code.

Find

Libraries like **jQuery**, **Bootstrap**, **React**, and **Angular**, and components from frameworks such as **Ember**.

Discover

Packages for mobile, IoT, front end, back end, robotics... everything you need to start building amazing things.

Build

Assemble packages like building blocks to quickly develop awesome new projects.

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npm Registry Crosses One Billion Average Daily Downloads

npm, Inc. Bolsters Momentum with New Customer Wins and Portfolio Expansion

September 12, 2018 10:00 AM Eastern Daylight Time

OAKLAND, Calif.--(BUSINESS WIRE)--npm, Inc., which runs the world's largest software registry and maintains the `npm` software development tool, today announced that the npm Registry has achieved one billion average daily downloads and more than 100 billion downloads in the last 12 months—a 43 percent increase over the prior year.

"Our community's sustained growth attests to the revolution underway in how everyone—from individual developers to the world's largest enterprises—develops code."

The size of the npm community has grown to over 785,000 packages of reusable, modular code shared by over 10 million developers worldwide. Each week, developers publish over 90,000 new versions of software to the npm Registry, and in a recent npm, Inc. survey of more than 16,000 worldwide developers, 95 percent of respondents report they intend to use JavaScript as much or more over the next 12 months.

"JavaScript is how the world writes software, and npm is how developers write JavaScript," said npm, Inc. co-founder Isaac Z. Schlueter. "Our community's sustained growth attests to the revolution underway in how everyone—from individual developers to the world's largest enterprises—develops code."

Rolling 28-day downloads

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axios

0.18.0 • `Public` • Published a year ago

| Readme | 2 Dependencies | 14,437 Dependents | 38 Versions |

axios

`npm v0.18.0` `build failing` `coverage 94%` `downloads 12M/m` `chat on gitter` `code helpers 64`

Promise based HTTP client for the browser and node.js

Features

- Make XMLHttpRequests from the browser
- Make http requests from node.js
- Supports the Promise API
- Intercept request and response
- Transform request and response data
- Cancel requests
- Automatic transforms for JSON data
- Client side support for protecting against XSRF

Browser Support

install

```
> npm i axios
```

⬇ weekly downloads

3,687,144

version	license
0.18.0	MIT

open issues	pull requests
413	96

homepage	repository
github.com	◈ **github**

last publish

5 months ago

```
npm install axios --save
```

Download and install axios library
into current module

Includes axios in
'node_modules'

four-square-prj ❯ node_modules

Project ▾

▼ four-square-prj ~/repos/modules/wit-h
  ▼ node_modules library root
    ▶ axios
    ▶ debug
    ▶ follow-redirects
    ▶ is-buffer
    ▶ ms
    .gitignore
    fs.js
    package.json
    package-lock.json
  External Libraries
  Scratches and Consoles

```
npm install axios --save
```

```json
{
  "name": "four-square-prj",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "author": "",
  "license": "ISC",
  "dependencies": {
    "axios": "^0.18.0"
  }
}
```

Includes axios in 'dependencies'

package.json

```javascript
const axios = require('axios');

const fsConfig = {
  base_url: 'https://api.foursquare.com/v2/venues/explore?',
  client_id: process.env.CLIENT_ID,
  client_secret: process.env.CLIENT_SECRET
};


const fsCredentials = '&client_id=' + fsConfig.client_id + '&client_secret='
                                    + fsConfig.client_secret + '&v=20190101';

axios.get(fsConfig.base_url + 'near=Waterford,IE' + fsCredentials).then(function(response) {
  console.log(response);
});
```
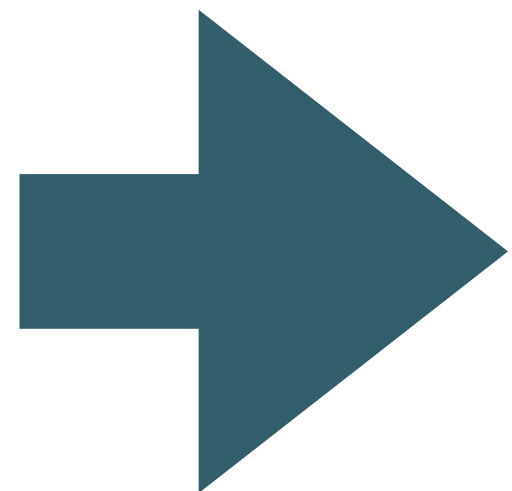
```
Run:    fs.js                                                      ⚙ —
 ▶   ↑   /usr/local/bin/node /Users/edeleastar/repos/modules/wit-hdip-comp-sci/ent-web-prj/four-square-node/fs.js
         https://api.foursquare.com/v2/venues/explore?near=Waterford,IE&client_id=0FSNYTF412DYI5P4LFYFIC1XFINPYMY00JQLPXV0G3WT2J2Y&client
 ■   ↓   { status: 200,
           statusText: 'OK',
 ■   ⇥     headers:
 ■   ≣↓     { server: 'nginx',
              'content-type': 'application/json; charset=utf-8',
 ✈    ▤       'access-control-allow-origin': '*',
              'tracer-time': '155',
      🗑       'x-ratelimit-path': '/v2/venues/explore',
              'x-ratelimit-limit': '5000',
              'x-ratelimit-remaining': '4999',
              'strict-transport-security': 'max-age=31536000',
              'x-rate-limit-key': '86.44.40.94',
              'x-ex': 'fastly_cdn',
              'content-length': '25876',
              'accept-ranges': 'bytes',
              date: 'Sun, 20 Jan 2019 10:45:13 GMT',
```
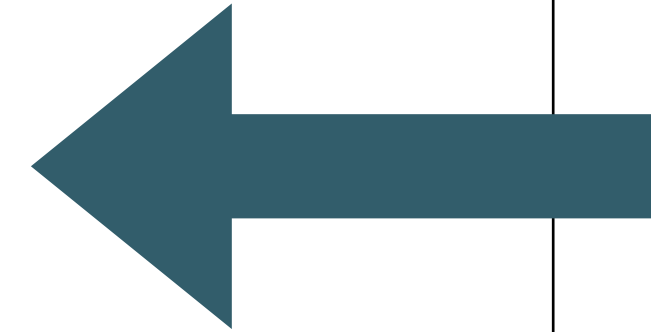
Promises

Call Back Function
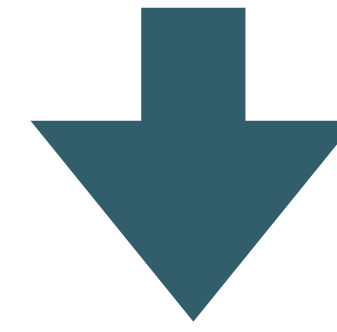
```
axios.get("… API Url…").then(function(response) {

  console.log(response);

});
```

Invoked asynchronously when response received from foursquare

```
{ status: 200,
  statusText: 'OK',
  headers:
   { server: 'nginx',
     'content-type': 'application/json; charset=utf-8',
     'access-control-allow-origin': '*',
     'tracer-time': '155',
     'x-ratelimit-path': '/v2/venues/explore',
     'x-ratelimit-limit': '5000',
     'x-ratelimit-remaining': '4999',
     'strict-transport-security': 'max-age=31536000',
     'x-rate-limit-key': '86.44.40.94',
     'x-ex': 'fastly_cdn',
     'content-length': '25876',
     'accept-ranges': 'bytes',
     date: 'Sun, 20 Jan 2019 10:45:13 GMT',
```
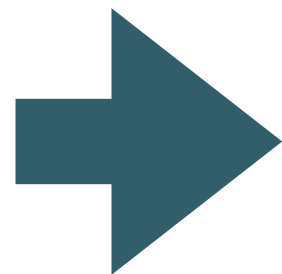
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```
axios.get("… API Url…").then(function(response) {

  console.log(response);

});
```



```
Promise {

        . . . .
     if (something){
       resolve(val)
     } else {
       return reject(err)
     }

        . . . .

     }
```
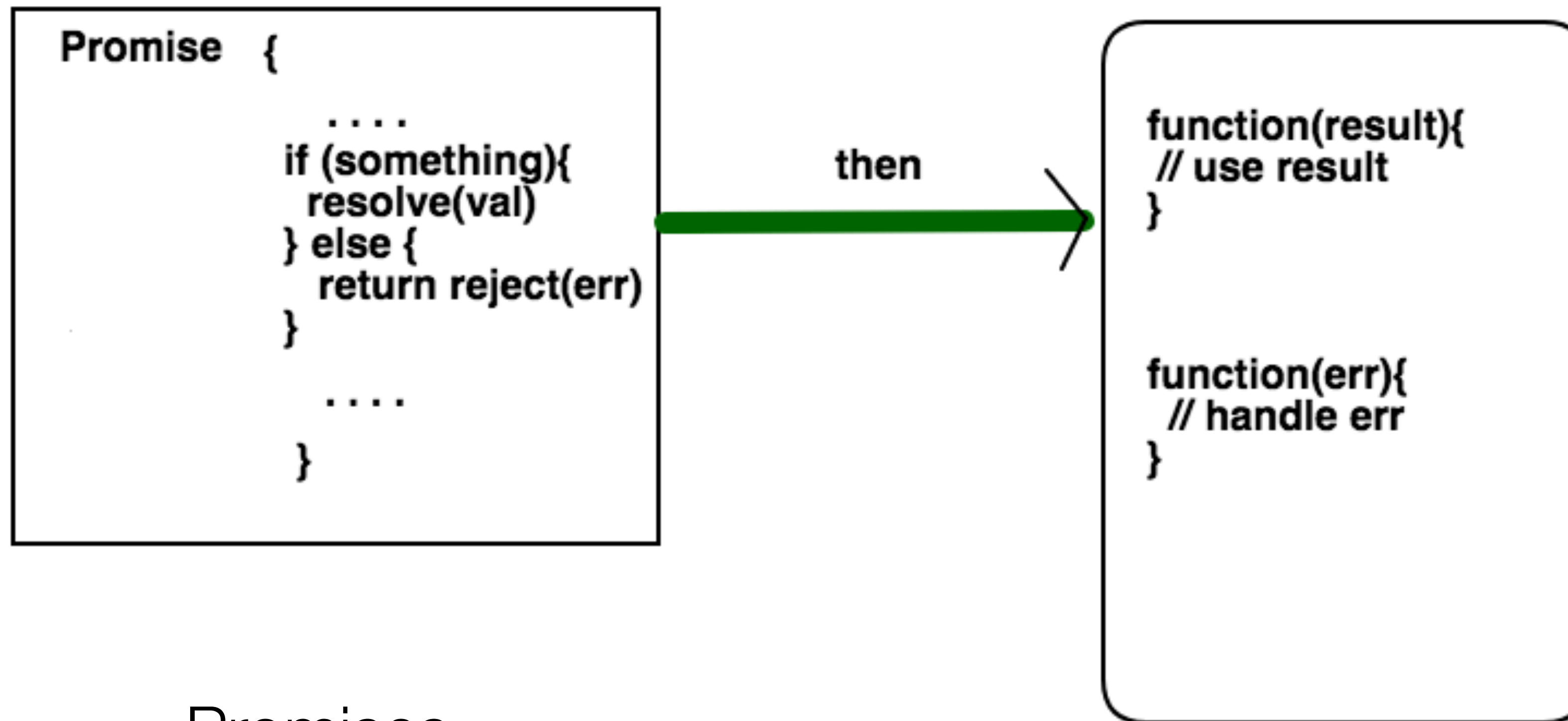
then →

```
function(result){
 // use result
}


function(err){
 // handle err
}
```

Promises

```javascript
axios.get("… API Url…").then(function(response) {

  var venues = response.data.response.groups[0].items;
  const venueCollection = [];
  for (let i = 0; i < venues.length; i++) {
    const singleVenue = venues[i].venue;
    const venue = {
      name: singleVenue.name,
    };
    venueCollection.push(venue);
  }
  console.log(venueCollection);

});
```

```
[ { name: 'Bodega!' },
  { name: 'Geoff\'s Café Bar' },
  { name: 'Carter\'s Chocolate Cafe' },
  { name: 'Emilianos' },
  { name: 'House of Waterford Crystal' },
  { name: 'Clock Tower' },
  { name: 'Jack Meades' },
  { name: 'Tower Hotel & Leisure Centre' },
  { name: 'Faithlegg House Hotel' },
  { name: 'McLeary\'s' },
  { name: 'Medieval Museum' },
  { name: 'Oskars' },
  { name: 'Phil Grimes' },
  { name: 'The Munster Bar' },
  { name: 'Granville Hotel' },
  { name: 'The Book Centre' }
```

four-square-node › fs.js

```javascript
const axios = require('axios');
require('dotenv').config();

const fsConfig = {
    base_url: 'https://api.foursquare.com/v2/venues/explore?',
    client_id: process.env.CLIENT_ID,
    client_secret: process.env.CLIENT_SECRET
};

const fsCredentials = '&client_id=' + fsConfig.client_id + '&client_secret=' + fsConfig.client_secret + '&v=20190101';

console.log(fsConfig.base_url + 'near=Waterford,IE' + fsCredentials);

axios.get(fsConfig.base_url + 'near=Waterford,IE' + fsCredentials).then(function(response) {
    var venues = response.data.response.groups[0].items;
    const venueCollection = [];
    for (let i = 0; i < venues.length; i++) {
        const singleVenue = venues[i].venue;
        const venue = {
            name: singleVenue.name,
        };
        venueCollection.push(venue);
    }
    console.log(venueCollection);
});
```

callback for then()

Debug: fs.js

Debugger | Console | Scripts | Debugger Console

Frames | Variables

anonymous(), fs.js:22
_tickCallback(), next_tic
Async call from Promise.
anonymous(), fs.js:14
Module._compile(), load
Module._extensions..js(
Module.load(), loader.js
tryModuleLoad(), loader
Module._load(), loader.js
Module.runMain(), loade
startup(), node.js:285
bootstrapNodeJSCore()

Block
  singleVenue = Object {id: "4d8c8c916174a09396389be3", name: "Bodega!", location: , categories: , photos: }
    categories = Array(1)
      0 = Object {id: "4bf58dd8d48988d1c0941735", name: "Mediterranean Restaurant", pluralName: "Mediterranean Restaurants", sh...
        icon = Object {prefix: "https://ss3.4sqi.net/img/categories_v2/food/mediterranean_", suffix: ".png"}
        id = "4bf58dd8d48988d1c0941735"
        name = "Mediterranean Restaurant"
        pluralName = "Mediterranean Restaurants"
        primary = true
        shortName = "Mediterranean"
        __proto__ = Object {constructor: , __defineGetter__: , __defineSetter__: , hasOwnProperty: , __lookupGetter__: , ...}
      length = 1
      __proto__ = Array(0)
    id = "4d8c8c916174a09396389be3"
    location = Object {address: "54 John St", lat: 52.25780530559798, lng: -7.111618539500411, labeledLatLngs: , cc: "IE", ...}
      address = "54 John St"
      cc = "IE"
      city = "Waterford"
      country = "Ireland"
      formattedAddress = Array(4)
      labeledLatLngs = Array(1)
      lat = 52.25780530559798
      lng = -7.111618539500411

4: Run | 5: Debug | 6: TODO | 9: Version Control | Terminal

Event Log

22:21   LF   UTF-8   2 spaces   Git: master

16

Block

```
▼ ≣ singleVenue = Object {id: "4d8c8c916174a09396389be3", name: "Bodega!", location: , categories: , photos: }
  ▼ ≣ categories = Array(1)
    ▼ ≣ 0 = Object {id: "4bf58dd8d48988d1c0941735", name: "Mediterranean Restaurant", pluralName: "Mediterranean Restaurants"
      ▶ ≣ icon = Object {prefix: "https://ss3.4sqi.net/img/categories_v2/food/mediterranean_", suffix: ".png"}
        01 id = "4bf58dd8d48988d1c0941735"
        01 name = "Mediterranean Restaurant"
        01 pluralName = "Mediterranean Restaurants"
        01 primary = true
        01 shortName = "Mediterranean"
      ▶ ≣ __proto__ = Object {constructor: , __defineGetter__: , __defineSetter__: , hasOwnProperty: , __lookupGetter__: , ...}
      01 length = 1
    ▶ ≣ __proto__ = Array(0)
    01 id = "4d8c8c916174a09396389be3"
  ▼ ≣ location = Object {address: "54 John St", lat: 52.25780530559798, lng: -7.111618539500411, labeledLatLngs: , cc: "IE", ...}
      01 address = "54 John St"
      01 cc = "IE"
      01 city = "Waterford"
      01 country = "Ireland"
    ▶ ≣ formattedAddress = Array(4)
    ▶ ≣ labeledLatLngs = Array(1)
      01 lat = 52.25780530559798
      01 lng = -7.111618539500411
```

```javascript
var venues = response.data.response.groups[0].items;
const venueCollection = [];
for (let i = 0; i < venues.length; i++) {
  const singleVenue = venues[i].venue;
  const venue = {
    name: singleVenue.name,
  };
  venueCollection.push(venue);
}
```

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Restructure to a reusable function

```javascript
function loadVenues(location) {
  console.log(`Searching ${location}...`);
  axios.get(fsConfig.base_url + location + fsCredentials).then(function(response) {
    var venues = response.data.response.groups[0].items;
    const venueCollection = [];
    for (let i = 0; i < venues.length; i++) {
      const singleVenue = venues[i].venue;
      const venue = {
        name: singleVenue.name
      };
      venueCollection.push(venue);
    }
    console.log(venueCollection);
  });
}
```
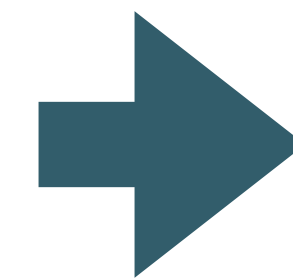
```javascript
loadVenues('near=Waterford,IE');
loadVenues('near=Tramore,IE');
loadVenues('near=Dungarvan,IE');
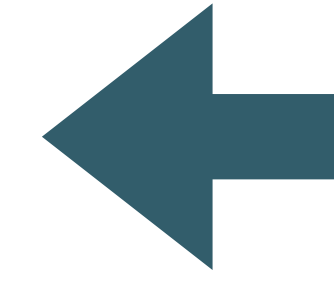```
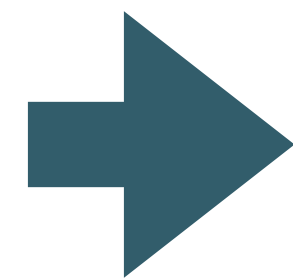
Retrieve multiple locations

```
Searching near=Waterford,IE...
Searching near=Tramore,IE...
Searching near=Dungarvan,IE...
[ { name: 'Tramore Beach' },
  { name: 'Victoria House (The Vic)' },
  { name: 'Moe\'s Café' },
  { name: 'Raglan Road' },
  { name: 'Dooly\'s' },
  { name: 'Lidl' },
  { name: 'Tramore Amusement Park' },
  { name: 'O\'Shea\'s Hotel' },
  { name: 'Quish\'s SuperValu' },
  { name: 'Tesco' },
  { name: 'T-Bay Café' },
  { name: 'Croke\'s' },
  { name: 'Coastguard Cultural Centre' },
  { name: 'Tramore Service Station' } ]
[ { name: 'The Moorings' },
  { name: 'Merry\'s Bar' },
  { name: 'The Tannery' },
  { name: 'Clonea Strand Beach' },
  { name: 'Meades Cafe' },
  { name: 'The Anchor' },
  { name: 'Dungarvan Shopping Centre' },
  { name: 'The Lady Belle' },
  { name: 'Interlude' },
  { name: 'Lidl' },
  { name: 'The Park Hotel & Leisure Centre' },
  { name: 'McDonald\'s' },
  { name: 'Gold Coast Golf Resort' },
  { name: 'The Local' },
  { name: 'Ormond\'s Café & Restaurant' },
  { name: 'Walton Park' },
  { name: 'Lawlor\'s Hotel' },
  { name: 'SGC Cinema' },
  { name: 'Dungarvan Harbour' },
  { name: 'Bayview Caravan Park' },
  { name: 'Grattan Square' },
  { name: 'Gold Coast Golf Club' },
  { name: 'Dunnes Stores' },
  { name: 'Clonea Strand Hotel' },
  { name: 'Indian Ocean' },
  { name: 'Garvey\'s SuperValu' } ]
[ { name: 'Bodega!' },
  { name: 'Geoff\'s Café Bar' },
  { name: 'Carter\'s Chocolate Cafe' },
  { name: 'Emilianos' },
  { name: 'House of Waterford Crystal' },
```

```
loadVenues('near=Waterford,IE');
loadVenues('near=Tramore,IE');
loadVenues('near=Dungarvan,IE');
```

```
Searching near=Waterford,IE...
Searching near=Tramore,IE...
Searching near=Dungarvan,IE...
[ { name: 'Tramore Beach' },
  { name: 'Victoria House (The Vic)' },
  { name: 'Moe\'s Café' },
  { name: 'Raglan Road' },
  { name: 'Dooly\'s' },
  { name: 'Lidl' },
  { name: 'Tramore Amusement Park' },
  { name: 'O\'Shea\'s Hotel' },
  { name: 'Quish\'s SuperValu' },
  { name: 'Tesco' },
  { name: 'T-Bay Café' },
  { name: 'Croke\'s' },
  { name: 'Coastguard Cultural Centre' },
  { name: 'Tramore Service Station' } ]
[ { name: 'The Moorings' },
  { name: 'Merry\'s Bar' },
  { name: 'The Tannery' },
  { name: 'Clonea Strand Beach' },
  { name: 'Meades Cafe' },
  { name: 'The Anchor' },
  { name: 'Dungarvan Shopping Centre' },
  { name: 'The Lady Belle' },
  { name: 'Interlude' },
  { name: 'Lidl' },
  { name: 'The Park Hotel & Leisure Centre' },
  { name: 'McDonald\'s' },
  { name: 'Gold Coast Golf Resort' },
  { name: 'The Local' },
  { name: 'Ormond\'s Café & Restaurant' },
  { name: 'Walton Park' },
  { name: 'Lawlor\'s Hotel' },
  { name: 'SGC Cinema' },
  { name: 'Dungarvan Harbour' },
  { name: 'Bayview Caravan Park' },
  { name: 'Grattan Square' },
  { name: 'Gold Coast Golf Club' },
  { name: 'Dunnes Stores' },
  { name: 'Clonea Strand Hotel' },
  { name: 'Indian Ocean' },
  { name: 'Garvey\'s SuperValu' } ]
[ { name: 'Bodega!' },
  { name: 'Geoff\'s Café Bar' },
  { name: 'Carter\'s Chocolate Cafe' },
  { name: 'Emilianos' },
  { name: 'House of Waterford Crystal' },
```

All three invocations made….

… responses arrive out of sequence.

Alternative to <u>Promises</u> — <u>Async/Await</u>

```javascript
async function loadVenues(location) {
  const response = await axios.get(fsConfig.base_url + location + fsCredentials);
  console.log(`Searching ${location}...`);
  var venues = response.data.response.groups[0].items;
  const venueCollection = [];
  for (let i = 0; i < venues.length; i++) {
    const singleVenue = venues[i].venue;
    const venue = {
      name: singleVenue.name
    };
    venueCollection.push(venue);
  }
  console.log(venueCollection);
}
```

Async/Await

```javascript
async function loadVenues(location) {
  const response = await axios.get(fsConfig.base_url + location + fsCredentials);
  console.log(`Searching ${location}...`);
  var venues = response.data.response.groups[0].items;
  const venueCollection = [];
  for (let i = 0; i < venues.length; i++) {
    const singleVenue = venues[i].venue;
    const venue = {
      name: singleVenue.name
    };
    venueCollection.push(venue);
  }
  console.log(venueCollection);
}
```

No callback function needed — axios.get() function pauses
until response arrives