Mapbox

Web Mapping Libraries

Google Maps JavaScript API

ArcGIS Maps SDK for JavaScript

Leaflet

OpenLayers

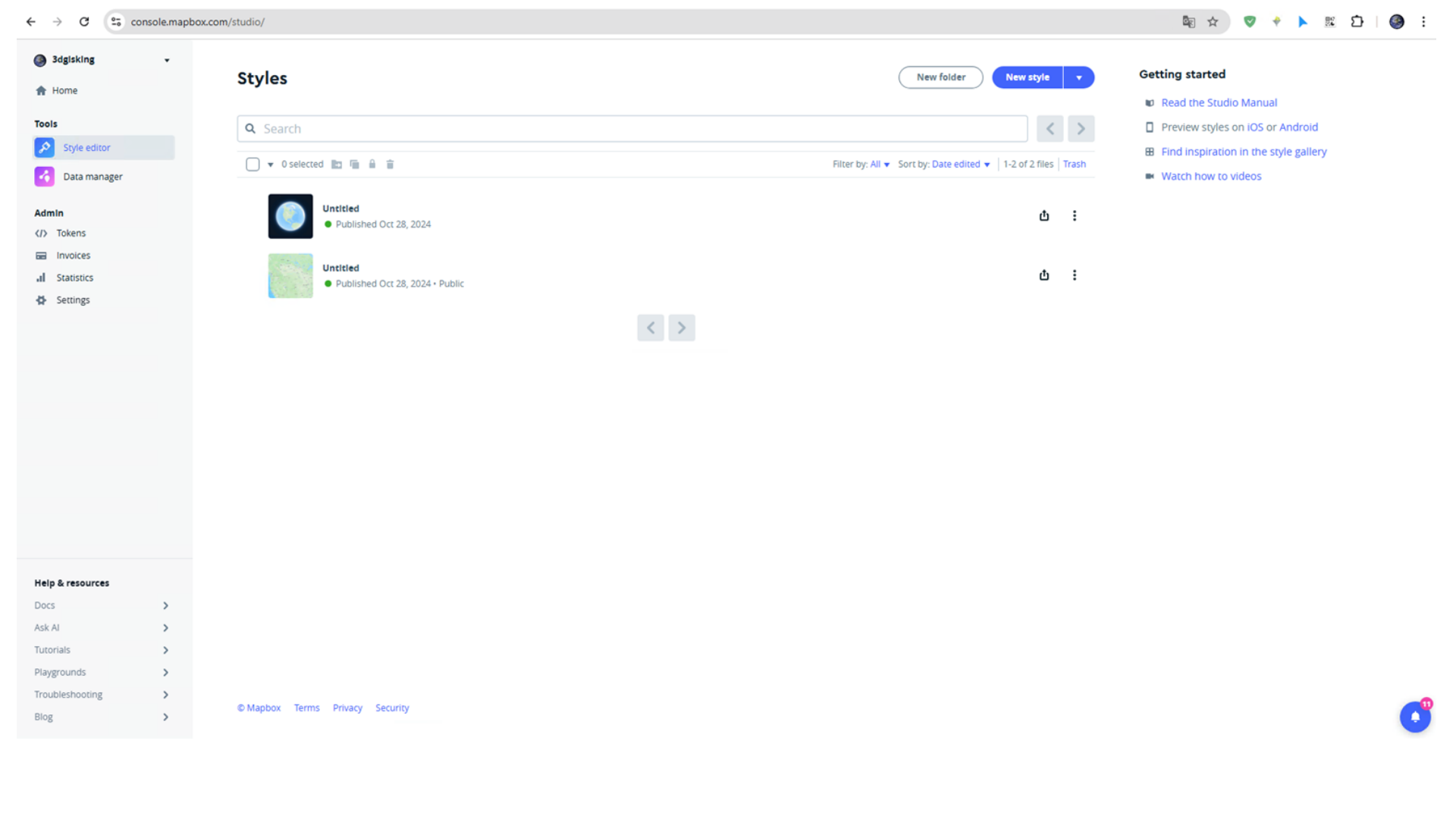
Mapbox gl js

CesiumJS

…

What is Mapbox?

Mapbox is a platform that provides mapping services, allowing developers to create and customize maps for web and mobile applications. It offers a variety of APIs and SDKs for integrating maps, search, navigation, and location data into applications. Mapbox also provides tools like Mapbox Studio for designing custom map styles.


console.mapbox.com/studio/
3dgisking
Home
Tools
Style editor
Data manager
Admin
Tokens
Invoices
Statistics
Settings
Help & resources
Docs
Ask AI
Tutorials
Playgrounds
Troubleshooting
Blog
Styles
New folder
New style
Search
0 selected
Filter by: All
Sort by: Date edited
1-2 of 2 files
Trash
Untitled
Published Oct 28, 2024
Untitled
Published Oct 28, 2024 • Public
Getting started
Read the Studio Manual
Preview styles on iOS or Android
Find inspiration in the style gallery
Watch how to videos
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Security
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Mapbox GL JS

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User interaction
Migrate to Mapbox GL JS v3
Globe and Atmosphere
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Browsers and testing
Pricing

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PLUGINS AND FRAMEWORKS

EXAMPLES

STYLE SPECIFICATION

TUTORIALS

TROUBLESHOOTING

HOW-TO VIDEOS

Mapbox GL JS

Current version: `v3.11.0` View changelog

- ✓ Custom map styles
- ✓ Fast vector maps
- ✓ Compatible with other Mapbox tools

Install Contribute on GitHub

Mapbox GL JS is a client-side JavaScript library for building web maps and web applications with Mapbox's modern mapping technology. You can use Mapbox GL JS to display Mapbox maps in a web browser or client, add user interactivity, and customize the map experience in your application.


```
<!DOCTYPE html>
<html>
<head>
```

On this page

Use cases
Key concepts
Mapbox GL
Client-side rendering
The Map class
Layers
Camera
Use Mapbox GL JS with other tools
Use your own data
Style your maps
Interactivity
Mapbox web services APIs
JavaScript frameworks
Attribution

Additional Developer Resources

- Mapbox Developer Discord
- Developer Cheatsheet
- Mapbox Support
- Ask AI

Ask AI

Getting Started

Prerequisites

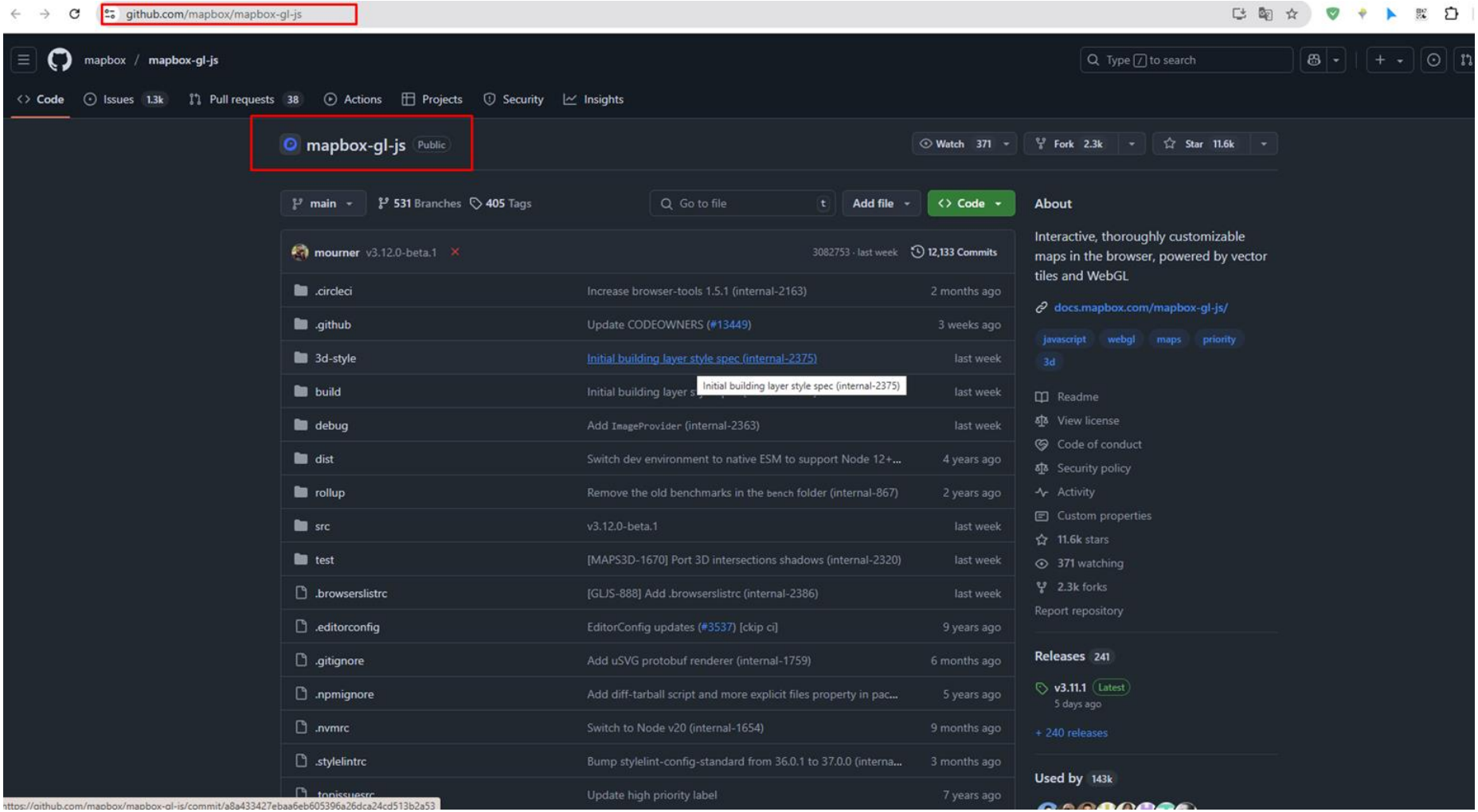
Before you get started with Mapbox GL JS, you need to have a Mapbox access token and add Mapbox GL JS to your project using either the CDN or the `mapbox-gl` npm package.

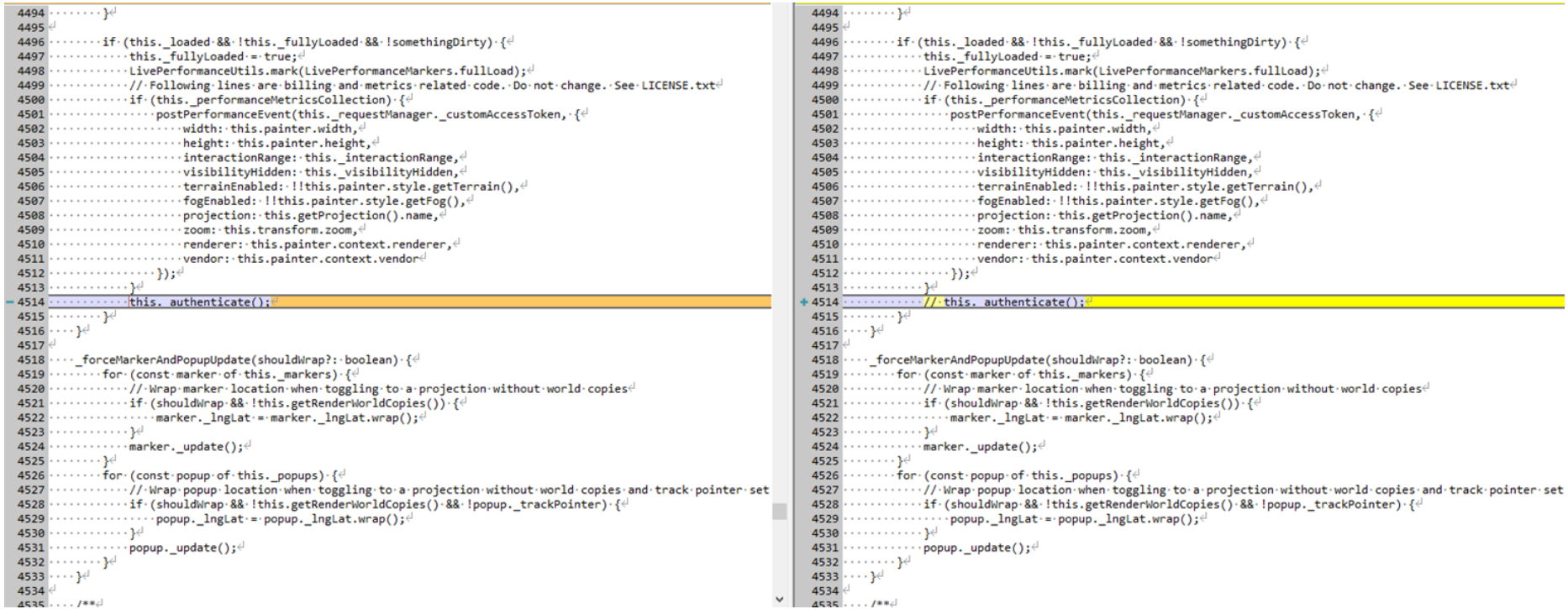
To use Mapbox GL JS in your project, yc
install the `mapbox-gl` npm package.

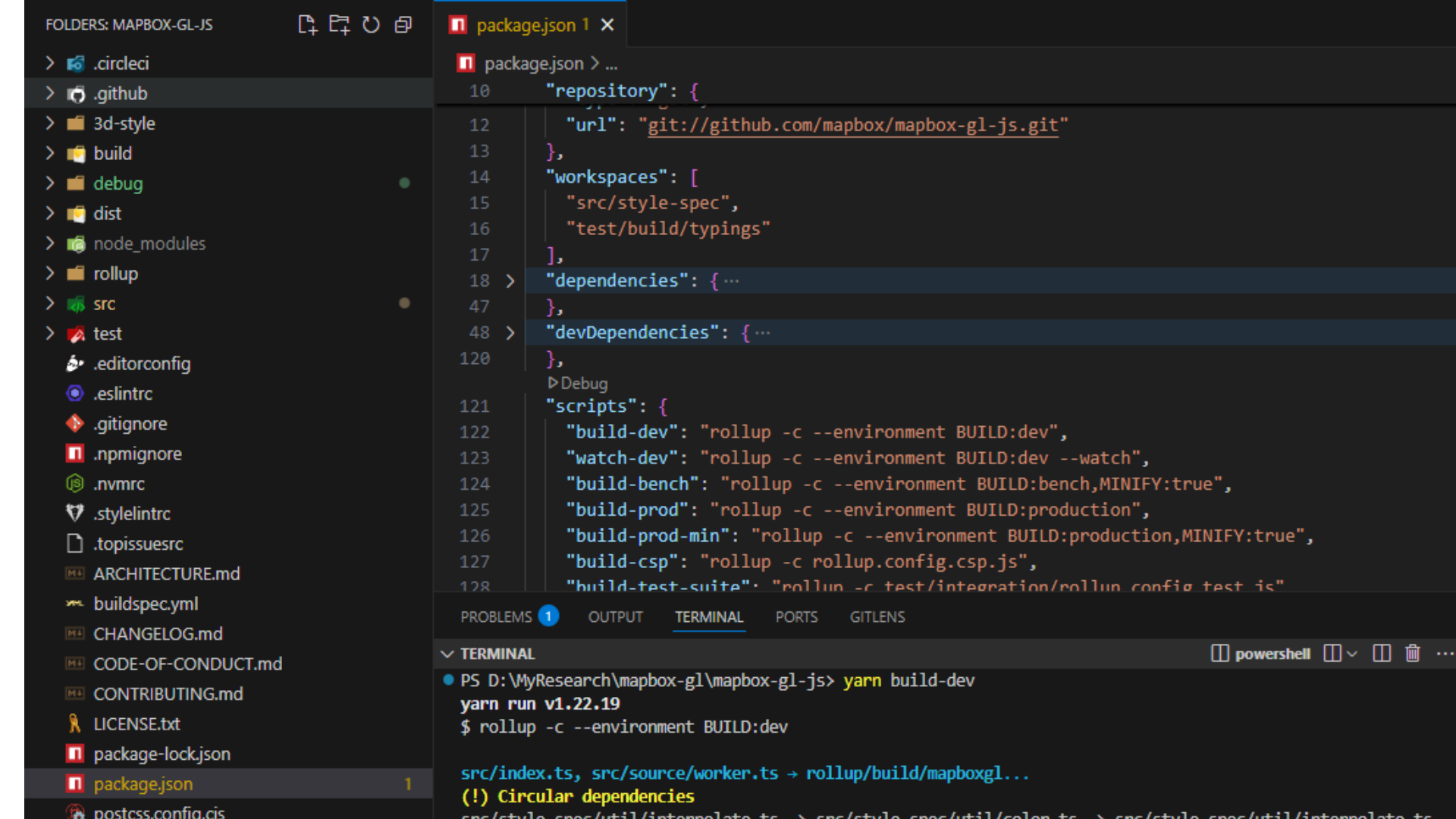
A CDN, or Content Delivery Network, is **a network of distributed servers that aim to deliver web content to users faster and more efficiently**. It works by caching and storing website files, like images and HTML, on servers geographically closer to the users, reducing the distance that data needs to travel. This results in quicker load times and a better user experience.

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>Mapbox GL JS map</title>
<meta name="viewport" content="initial-scale=1,maximum-scale=1,user-scalable=no">
<link href="https://api.mapbox.com/mapbox-gl-js/v3.11.0/mapbox-gl.css" rel="stylesheet">
<script src="https://api.mapbox.com/mapbox-gl-js/v3.11.0/mapbox-gl.js"></script>
<style>
body { margin: 0; padding: 0; }
#map { position: absolute; top: 0; bottom: 0; width: 100%; }
</style>
</head>
<body>
<div id="map"></div>
<script>
            mapboxgl.accessToken = 'pk.eyJ1IjoiM2RnaXNraW5nIiwiYSI6ImNtMnNvYmF5bDF3OGcya3E4Mm41MjJhYWUifQ.eyjl7EtxA-
HVY3fUTDXqZw';
   const map = new mapboxgl.Map({
       container: 'map', // container ID
       center: [-74.5, 40], // starting position [lng, lat]. Note that lat must be set between -90 and 90
       zoom: 9 // starting zoom
   });
</script>
```

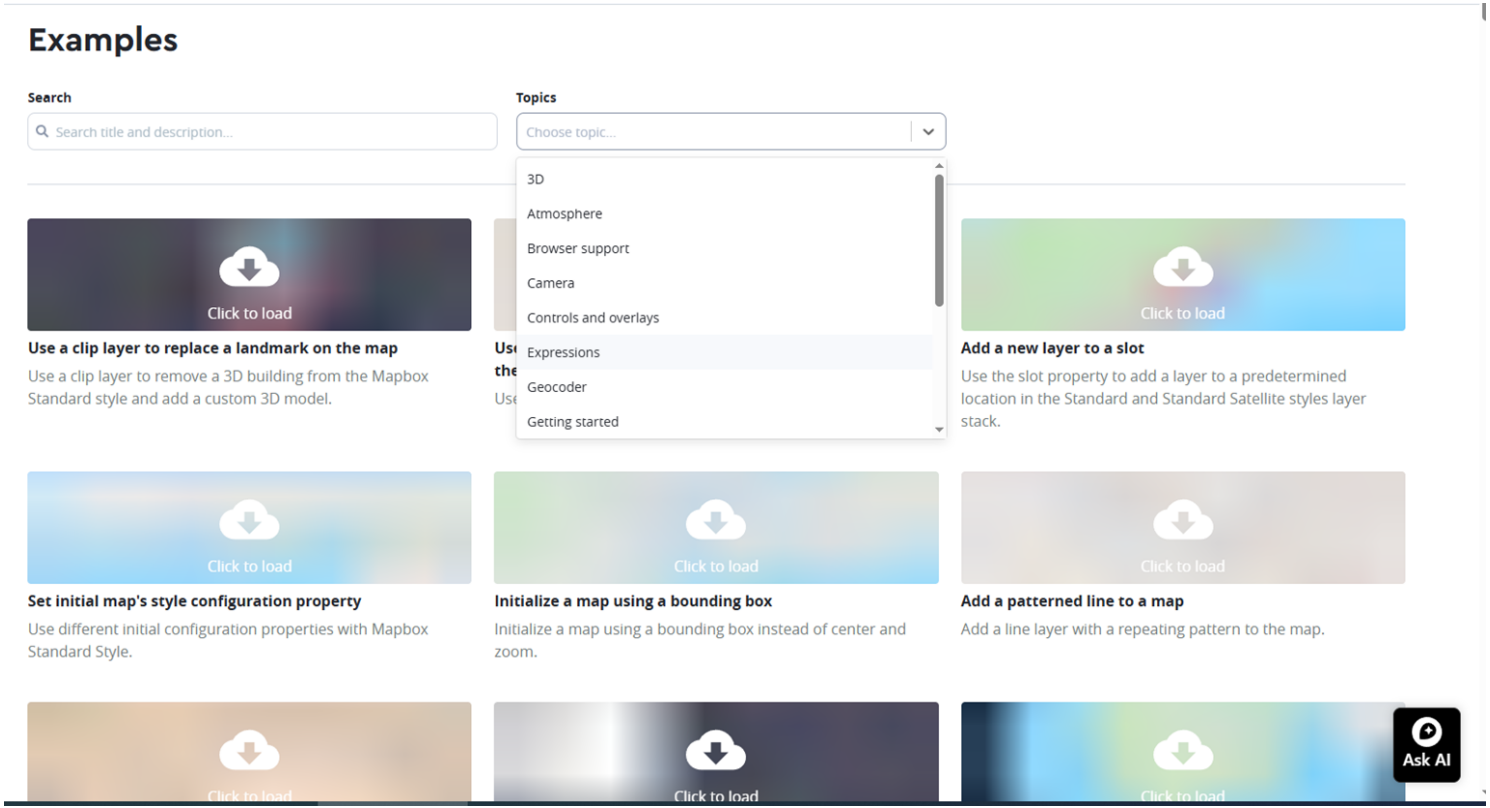
```
import mapboxgl from 'mapbox-gl'; // or "const mapboxgl = require('mapbox-gl');"
import 'mapbox-gl/dist/mapbox-gl.css';


mapboxgl.accessToken =
'pk.eyJ1IjoiM2RnaXNraW5nIiwiYSI6ImNtMnNvYmF5bDF3OGcya3E4Mm41MjJhYWUifQ.eyjl7EtxA
-HVY3fUTDXqZw';
const map = new mapboxgl.Map({
        container: 'map', // container ID
        style: 'mapbox://styles/mapbox/streets-v12', // style URL
        center: [-74.5, 40], // starting position [lng, lat]
        zoom: 9, // starting zoom
});
```


github.com/mapbox/mapbox-gl-js
mapbox / mapbox-gl-js
Type / to search
Code
Issues 1.3k
Pull requests 38
Actions
Projects
Security
Insights
mapbox-gl-js Public
Watch 371
Fork 2.3k
Star 11.6k
main
531 Branches
405 Tags
Go to file
t
Add file
Code
mourner v3.12.0-beta.1
3082753 · last week
12,133 Commits
.circleci Increase browser-tools 1.5.1 (internal-2163) 2 months ago
.github Update CODEOWNERS (#13449) 3 weeks ago
3d-style Initial building layer style spec (internal-2375) last week
build Initial building layer s last week
Initial building layer style spec (internal-2375)
debug Add ImageProvider (internal-2363) last week
dist Switch dev environment to native ESM to support Node 12+... 4 years ago
rollup Remove the old benchmarks in the bench folder (internal-867) 2 years ago
src v3.12.0-beta.1 last week
test [MAPS3D-1670] Port 3D intersections shadows (internal-2320) last week
.browserslistrc [GLJS-888] Add .browserslistrc (internal-2386) last week
.editorconfig EditorConfig updates (#3537) [ckip ci] 9 years ago
.gitignore Add uSVG protobuf renderer (internal-1759) 6 months ago
.npmignore Add diff-tarball script and more explicit files property in pac... 5 years ago
.nvmrc Switch to Node v20 (internal-1654) 9 months ago
.stylelintrc Bump stylelint-config-standard from 36.0.1 to 37.0.0 (interna... 3 months ago
Update high priority label 7 years ago
About
Interactive, thoroughly customizable maps in the browser, powered by vector tiles and WebGL
docs.mapbox.com/mapbox-gl-js/
javascript webgl maps priority 3d
Readme
View license
Code of conduct
Security policy
Activity
Custom properties
11.6k stars
371 watching
2.3k forks
Report repository
Releases 241
v3.11.1 Latest
5 days ago
+ 240 releases
Used by 143k
https://github.com/mapbox/mapbox-gl-js/commit/a8a433427ebaa6eb605396a26dca24cd513b2a53

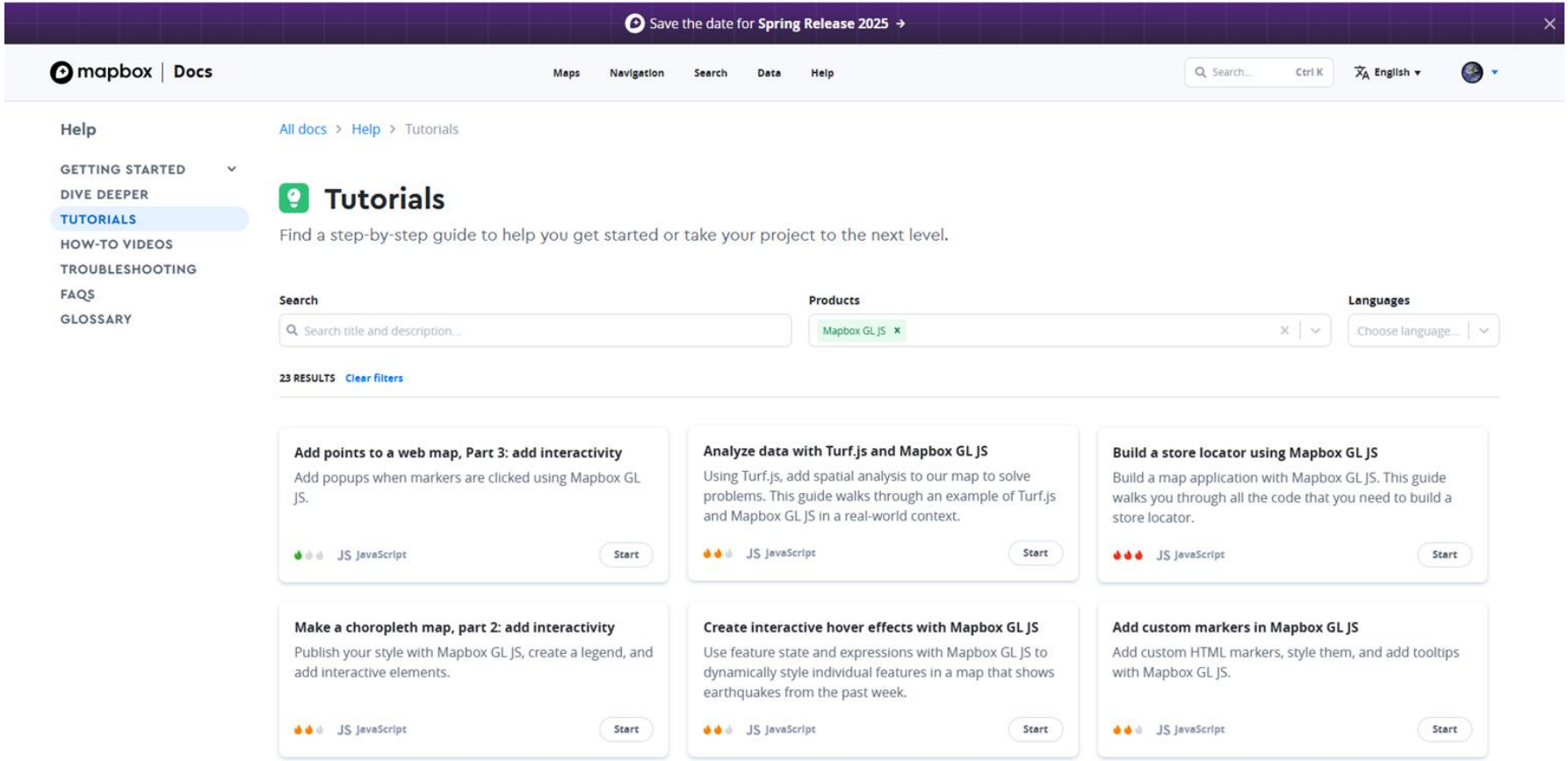



FOLDERS: MAPBOX-GL-JS
.circleci
.github
3d-style
build
debug
dist
node_modules
rollup
src
test
.editorconfig
.eslintrc
.gitignore
.npmignore
.nvmrc
.stylelintrc
.topissuesrc
ARCHITECTURE.md
buildspec.yml
CHANGELOG.md
CODE-OF-CONDUCT.md
CONTRIBUTING.md
LICENSE.txt
package-lock.json
package.json 1
postcss.config.cjs
package.json 1
package.json > ...
10 "repository": {
12 "url": "git://github.com/mapbox/mapbox-gl-js.git"
13 },
14 "workspaces": [
15 "src/style-spec",
16 "test/build/typings"
17],
18 "dependencies": {
47 },
48 "devDependencies": {
120 },
Debug
121 "scripts": {
122 "build-dev": "rollup -c --environment BUILD:dev",
123 "watch-dev": "rollup -c --environment BUILD:dev --watch",
124 "build-bench": "rollup -c --environment BUILD:bench,MINIFY:true",
125 "build-prod": "rollup -c --environment BUILD:production",
126 "build-prod-min": "rollup -c --environment BUILD:production,MINIFY:true",
127 "build-csp": "rollup -c rollup.config.csp.js",
PROBLEMS 1
OUTPUT
TERMINAL
PORTS
GITLENS
TERMINAL
powershell
PS D:\MyResearch\mapbox-gl\mapbox-gl-js> yarn build-dev
yarn run v1.22.19
$ rollup -c --environment BUILD:dev
src/index.ts, src/source/worker.ts → rollup/build/mapboxgl...
(!) Circular dependencies

https://docs.mapbox.com/mapbox-gl-js/example/



https://docs.mapbox.com/help/tutorials/?product=Mapbox+GL+JS



Mapbox Style Specification

A Mapbox style is a document that defines the visual appearance of a map: what data to draw, the order to draw it in, and how to style the data when drawing it. A style document is a JSON object with specific root level and nested properties. This specification defines and describes these properties.

The intended audience of this specification includes:

- Advanced designers and cartographers who want to write styles by hand rather than use Mapbox Studio.
- Developers using style-related features of Mapbox GL JS, the Mapbox Maps SDK for Android, or the Mapbox Maps SDK for iOS.
- Authors of software that generates or processes Mapbox styles.

Explore the Style Spec Reference to find details about each property, including its type, default value, and a description of how the property works.

Style document structure

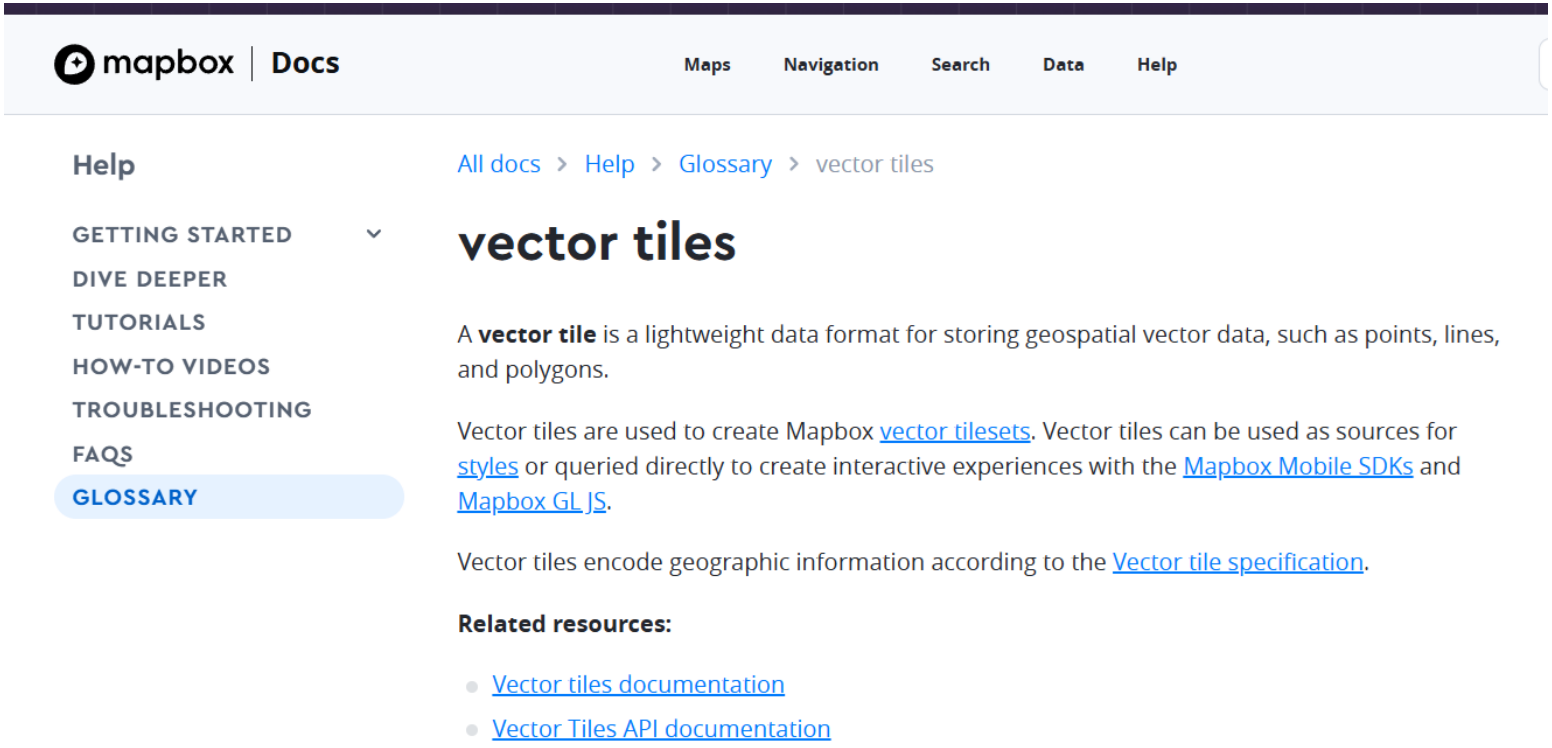
A Mapbox style consists of a set of root properties, some of which describe a single global property, and some of which contain nested properties. Some root properties, like `version`, `name`, and `metadata`, don't have any influence over the appearance or behavior of your map, but provide important descriptive information related to your map. Others, like `layers` and `sources`, are critical and determine which map features will appear on your map and what they will look like. Some properties, like `center`, `zoom`, `pitch`, and `bearing`, provide the map renderer with a set of defaults to be used when initially displaying the map.

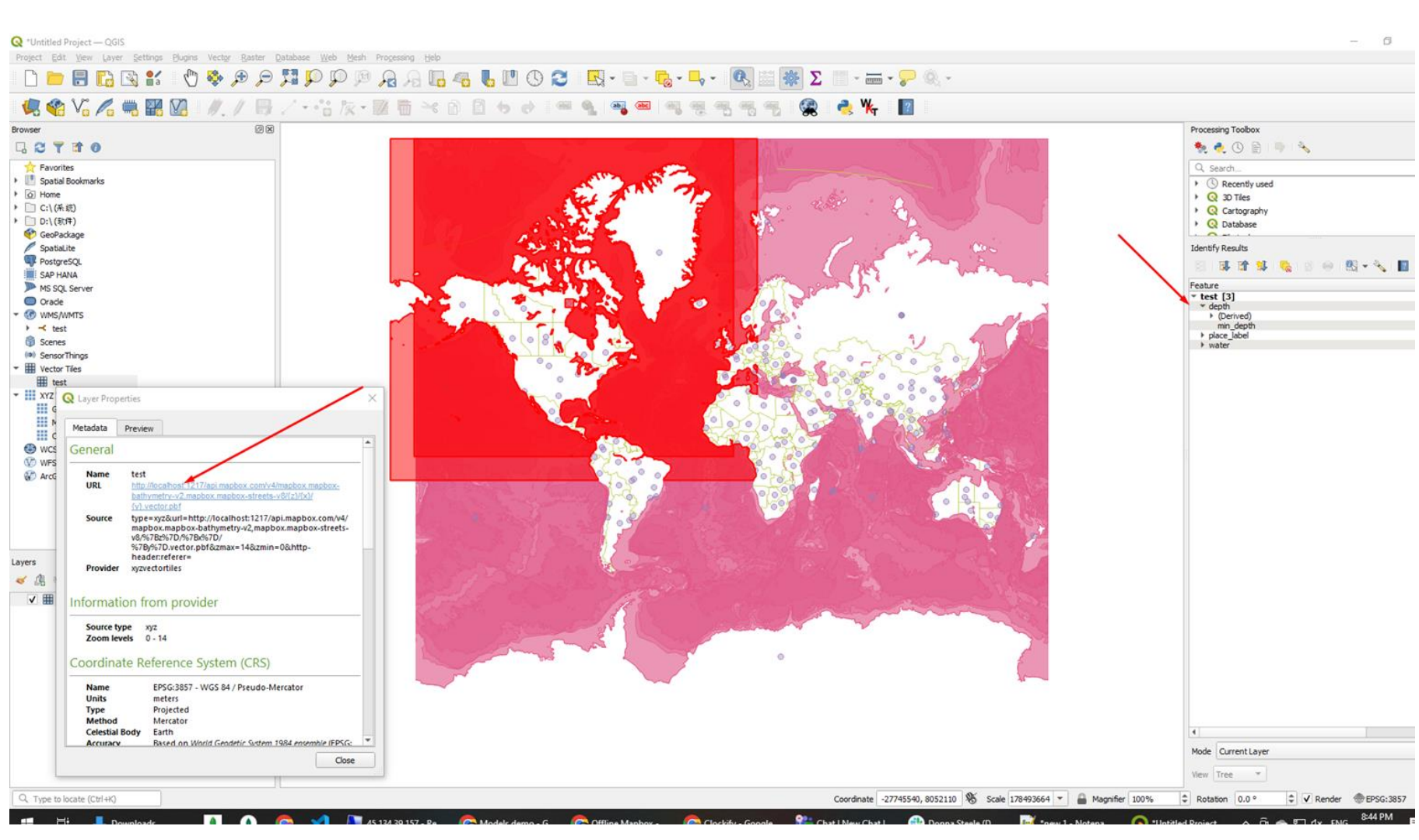
The snippet below shows an example style JSON, including the basic structure and some of the most common properties. See the Root section of the spec reference for the full list of root properties.

Sample style document

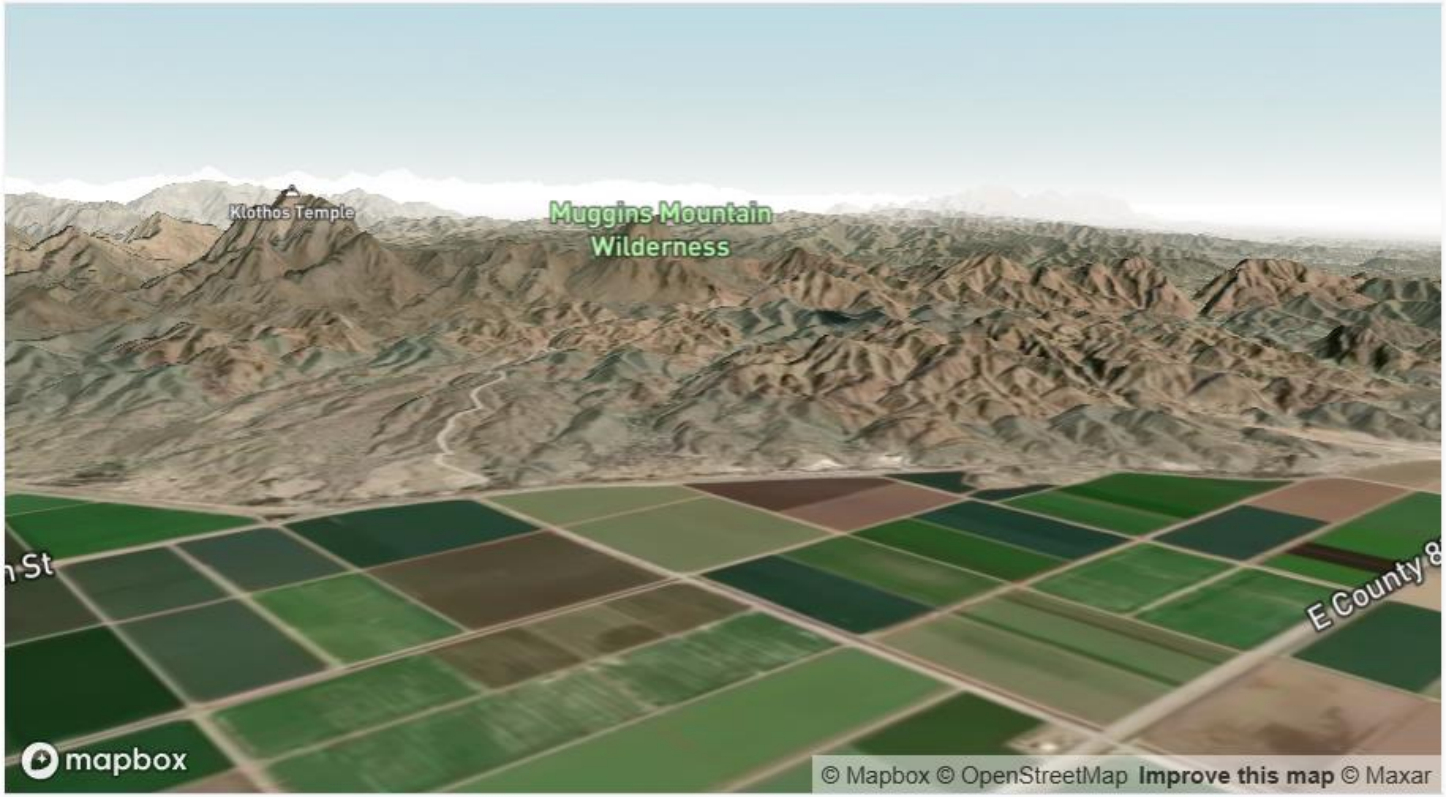
```
{
  "name": "some-style",
  "version": 8,

  // default camera position
  "center": [ -74, 40.73 ],
  "zoom": 11.3,
  "bearing": 20.8,
  "pitch": 17.5,

  // sprites and fonts
  "sprite": "mapbox://sprites/mapbox/light-v11",
  "glyphs": "mapbox://fonts/mapbox/{fontstack}/{range}.pbf",

  // spatial data to include, used one-to-many with layers
  "sources": {
    "some-vector-source": {
      "type": "vector",
```

Vector Tile


mapbox | Docs
Maps
Navigation
Search
Data
Help
Help
GETTING STARTED
DIVE DEEPER
TUTORIALS
HOW-TO VIDEOS
TROUBLESHOOTING
FAQS
GLOSSARY
All docs > Help > Glossary > vector tiles
vector tiles
A vector tile is a lightweight data format for storing geospatial vector data, such as points, lines, and polygons.
Vector tiles are used to create Mapbox vector tilesets. Vector tiles can be used as sources for styles or queried directly to create interactive experiences with the Mapbox Mobile SDKs and Mapbox GL JS.
Vector tiles encode geographic information according to the Vector tile specification.
Related resources:
Vector tiles documentation
Vector Tiles API documentation

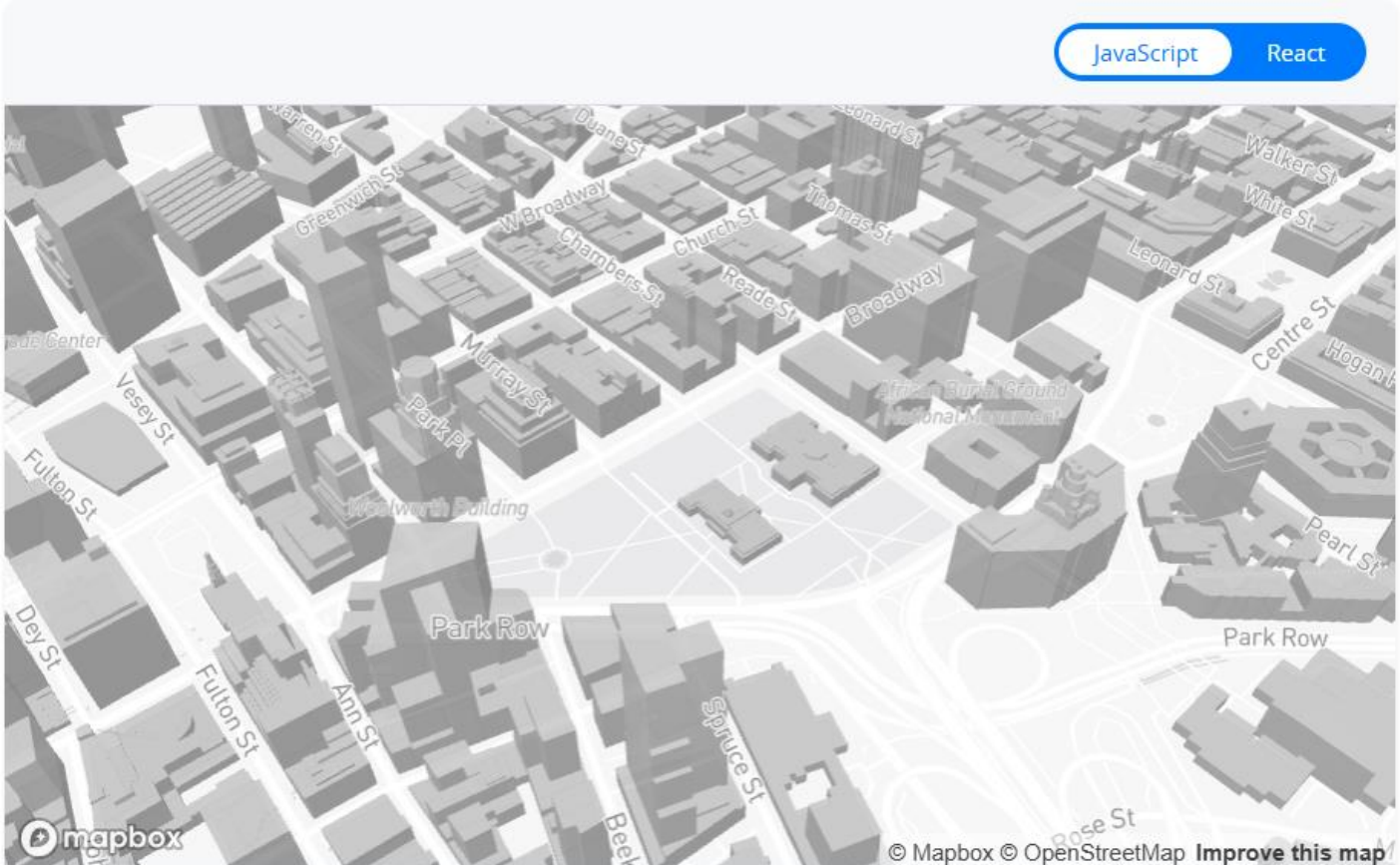

*Untitled Project — QGIS
Project Edit View Layer Settings Plugins Vector Raster Database Web Mesh Processing Help
Browser
Favorites
Spatial Bookmarks
Home
C:\(系統)
D:\(软件)
GeoPackage
SpatiaLite
PostgreSQL
SAP HANA
MS SQL Server
Oracle
WMS/WMTS
test
Scenes
SensorThings
Vector Tiles
test
Layers
Layer Properties
Metadata
Preview
General
Name test
URL http://localhost:1217/api.mapbox.com/v4/mapbox.mapbox-bathymetry-v2,mapbox.mapbox-streets-v8/{z}/{x}/{y}.vector.pbf
Source type=xyz&url=http://localhost:1217/api.mapbox.com/v4/mapbox.mapbox-bathymetry-v2,mapbox.mapbox-streets-v8/%7Bz%7D/%7Bx%7D/%7By%7D.vector.pbf&zmax=14&zmin=0&http-header:referer=
Provider xyzvectortiles
Information from provider
Source type xyz
Zoom levels 0 - 14
Coordinate Reference System (CRS)
Name EPSG:3857 - WGS 84 / Pseudo-Mercator
Units meters
Type Projected
Method Mercator
Celestial Body Earth
Close
Processing Toolbox
Search...
Recently used
3D Tiles
Cartography
Database
Identify Results
Feature
test [3]
depth
(Derived)
min_depth
place_label
water
Mode Current Layer
View Tree
Type to locate (Ctrl+K)
Coordinate -27745540, 8052110
Scale 178493664
Magnifier 100%
Rotation 0.0 °
Render
EPSG:3857
8:44 PM

Add 3D terrain to a map



```
<!DOCTYPE html>

<html>

<head>

<meta charset="utf-8">

<title>Add 3D terrain to a map</title>

<meta name="viewport" content="initial-scale=1,maximum-scale=1,user-scalable=no">

<link href="https://api.mapbox.com/mapbox-gl-js/v3.11.0/mapbox-gl.css" rel="stylesheet">

<script src="https://api.mapbox.com/mapbox-gl-js/v3.11.0/mapbox-gl.js"></script>

<style>

body { margin: 0; padding: 0; }

#map { position: absolute; top: 0; bottom: 0; width: 100%; }

</style>

</head>

<body>

<div id="map"></div>



<script>

                                        mapboxgl.accessToken = 'pk.eyJ1IjoiM2RnaXNraW5nIiwiYSI6ImNtMnNvYmF5bDF3OGcya3E4Mm41MjJhYWUifQ.eyJl7EtxA-HVY3fUTDXqZw';

    const map = new mapboxgl.Map({

        container: 'map',

        zoom: 14,

        center: [-114.26608, 32.7213],
```

Display buildings in 3D



```
<!DOCTYPE html>

<html>

<head>

<meta charset="utf-8">

<title>Display buildings in 3D</title>

<meta name="viewport" content="initial-scale=1,maximum-scale=1,user-scalable=no">

<link href="https://api.mapbox.com/mapbox-gl-js/v3.11.0/mapbox-gl.css" rel="stylesheet">

<script src="https://api.mapbox.com/mapbox-gl-js/v3.11.0/mapbox-gl.js"></script>

<style>

body { margin: 0; padding: 0; }

#map { position: absolute; top: 0; bottom: 0; width: 100%; }

</style>

</head>

<body>

<div id="map"></div>

<script>

                                        mapboxgl.accessToken = 'pk.eyJ1IjoiM2RnaXNraW5nIiwiYSI6ImNtMnNvYmF5bDF3OGcya3E4Mm41MjJhYWUifQ.eyJl7EtxA-HVY3fUTDXqZw';

    const map = new mapboxgl.Map({

        // Choose from Mapbox's core styles, or make your own style with Mapbox Studio

        style: 'mapbox://styles/mapbox/light-v11',

        center: [-74.0066, 40.7135],

        zoom: 15.5,
```