You can set up HTTPS for your localhost:3000 server by using a self-signed SSL certificate for local development. Here's how you can configure your Express server to run with HTTPS:

**Steps to enable HTTPS on localhost:**

1. **Generate a Self-Signed SSL Certificate**

You can generate a self-signed SSL certificate using OpenSSL. Open a terminal and run the following commands:

openssl genrsa -out key.pem 2048

openssl req -new -key key.pem -out csr.pem

openssl x509 -req -days 365 -in csr.pem -signkey key.pem -out cert.pem

This will generate two files:

* + key.pem (the private key)
  + cert.pem (the certificate)

**Note**: While this self-signed certificate will work for local development, browsers may warn you about its authenticity since it is not signed by a trusted certificate authority.

1. **Modify your server.js to use HTTPS**

You will need to import the https module, load the certificate and key, and configure your Express server to use HTTPS instead of HTTP.

Here's the updated server.js:

const express = require('express');

const path = require('path');

const session = require('express-session');

const https = require('https');

const fs = require('fs');

const app = express();

// Load SSL certificate and key

const sslOptions = {

key: fs.readFileSync('key.pem'),

cert: fs.readFileSync('cert.pem')

};

// Initialize express-session middleware

app.use(session({

secret: 'your\_secret\_key',

resave: false,

saveUninitialized: true,

cookie: { secure: true } // Set secure to true since you're using HTTPS

}));

// Serve static files from the "public" directory

app.use(express.static(path.join(\_\_dirname, 'public')));

// Route for the OAuth callback page

app.get('/callback', (req, res) => {

res.sendFile(path.join(\_\_dirname, 'callback.html'));

});

// Start the HTTPS server

const port = process.env.PORT || 3000;

https.createServer(sslOptions, app).listen(port, () => {

console.log(`Server running with HTTPS on https://localhost:${port}`);

});

1. **Access your site over HTTPS**

After setting this up, you'll be able to visit https://localhost:3000. You may get a browser warning about the security of the certificate because it's self-signed, but you can proceed for local development.

**Optional: Suppressing Browser Warnings (Development Only)**

To avoid constant browser warnings when using a self-signed certificate, you can choose to:

* **Accept the self-signed certificate**: When the warning appears, click on "Advanced" and proceed to the site (this varies depending on the browser).
* **Use a trusted certificate for development**: Services like [mkcert](https://github.com/FiloSottile/mkcert) can help you generate trusted certificates for local development.

Now you should be able to run your Express app over HTTPS on localhost:3000!