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4IT – B

INSTALLATION:

```
C:\WINDOWS\system32\cmd.  X  +  v
Microsoft Windows [Version 10.0.26100.6584]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Mar John>npm create vite@latest graphql-demo -- --template react

> npx
> create-vite graphql-demo --template react

|
|  Use rolldown-vite (Experimental)?:
|  No
|
|  Install with npm and start now?
|  Yes
|
|  Scaffolding project in C:\Users\Mar John\graphql-demo...
|
|  Installing dependencies with npm...
|
added 153 packages, and audited 154 packages in 20s

32 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
|
|  Starting dev server...
|
> graphql-demo@0.0.0 dev
> vite
```

```
removed 11 packages, and audited 155 packages in 4s

32 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

C:\Users\Mar John\graphql-demo>npm install @apollo/client@3.8.8 graphql@16.8.1 --legacy-peer-deps

added 19 packages, and audited 174 packages in 8s

32 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

C:\Users\Mar John\graphql-demo>npm run dev

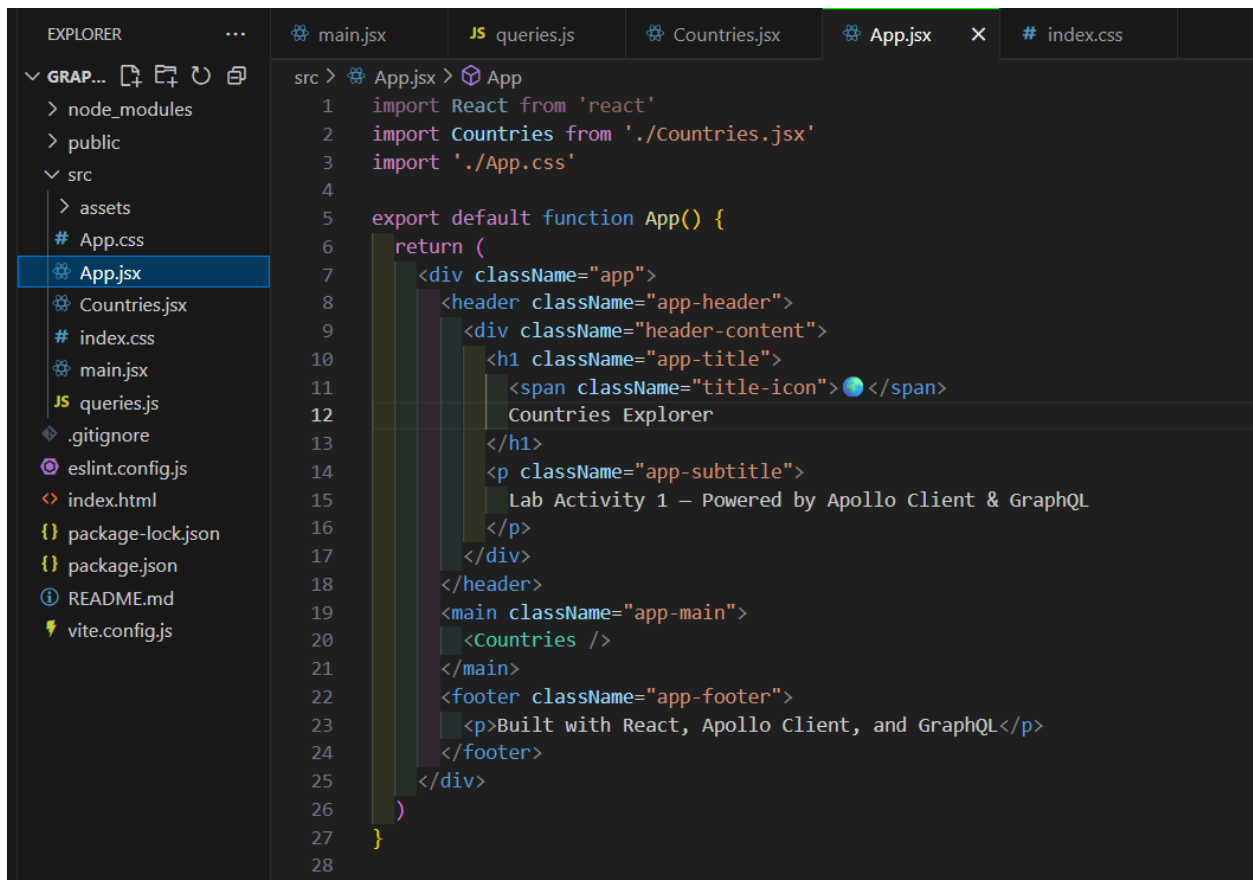
> graphql-demo@0.0.0 dev
> vite

8:28:18 AM [vite] (client) Re-optimizing dependencies because lockfile has changed
Port 5173 is in use, trying another one...

VITE v7.1.7  ready in 612 ms

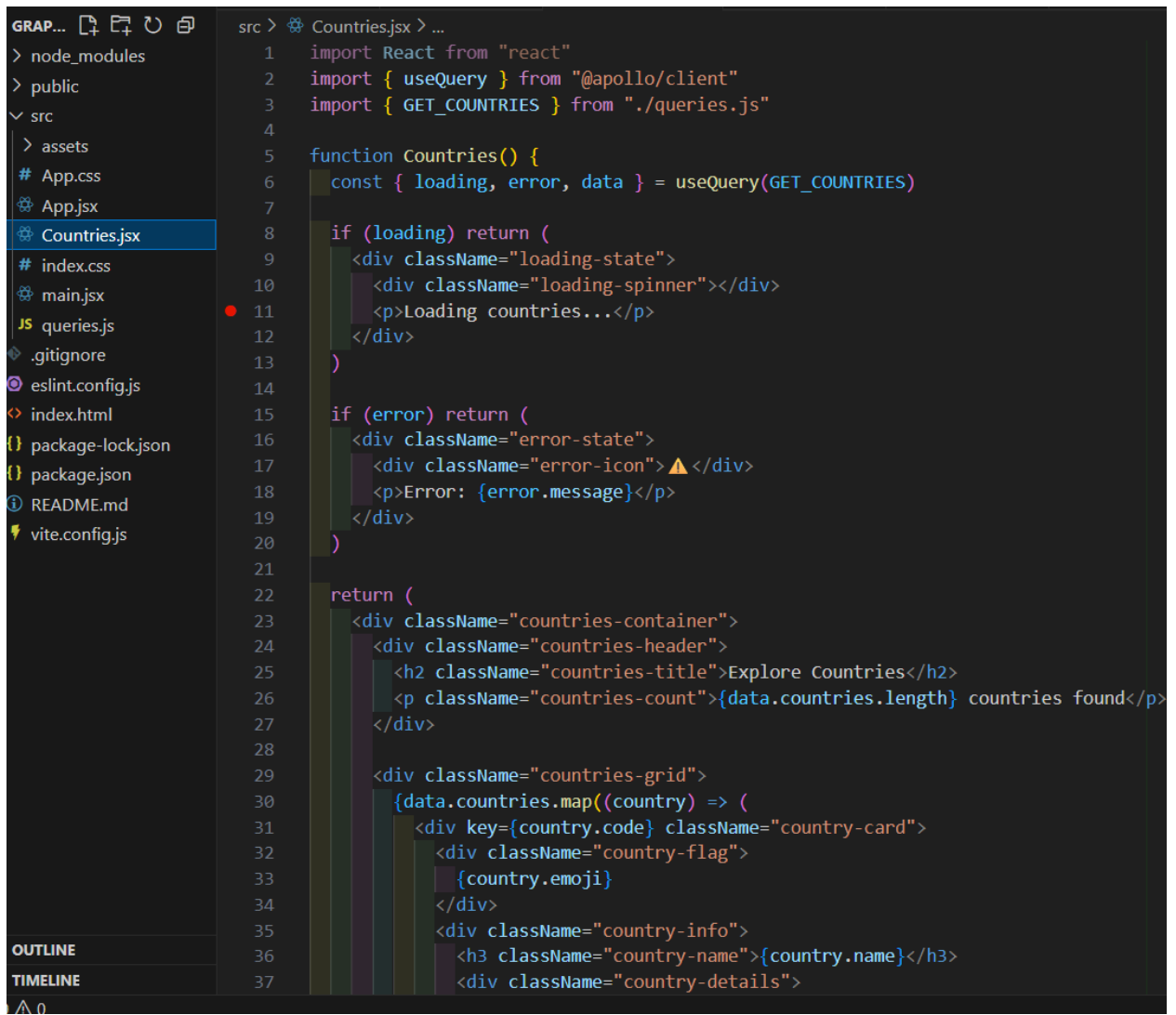
→ Local:   http://localhost:5174/
→ Network: use --host to expose
→ press h + enter to show help
```

App.js



```
1  import React from 'react'
2  import Countries from './Countries.jsx'
3  import './App.css'
4
5  export default function App() {
6    return (
7      <div className="app">
8        <header className="app-header">
9          <div className="header-content">
10             <h1 className="app-title">
11               <span className="title-icon">🌐</span>
12               Countries Explorer
13             </h1>
14             <p className="app-subtitle">
15               Lab Activity 1 – Powered by Apollo Client & GraphQL
16             </p>
17           </div>
18         </header>
19         <main className="app-main">
20           <Countries />
21         </main>
22         <footer className="app-footer">
23           <p>Built with React, Apollo Client, and GraphQL</p>
24         </footer>
25       </div>
26     )
27   }
28
```

Countries.jsx



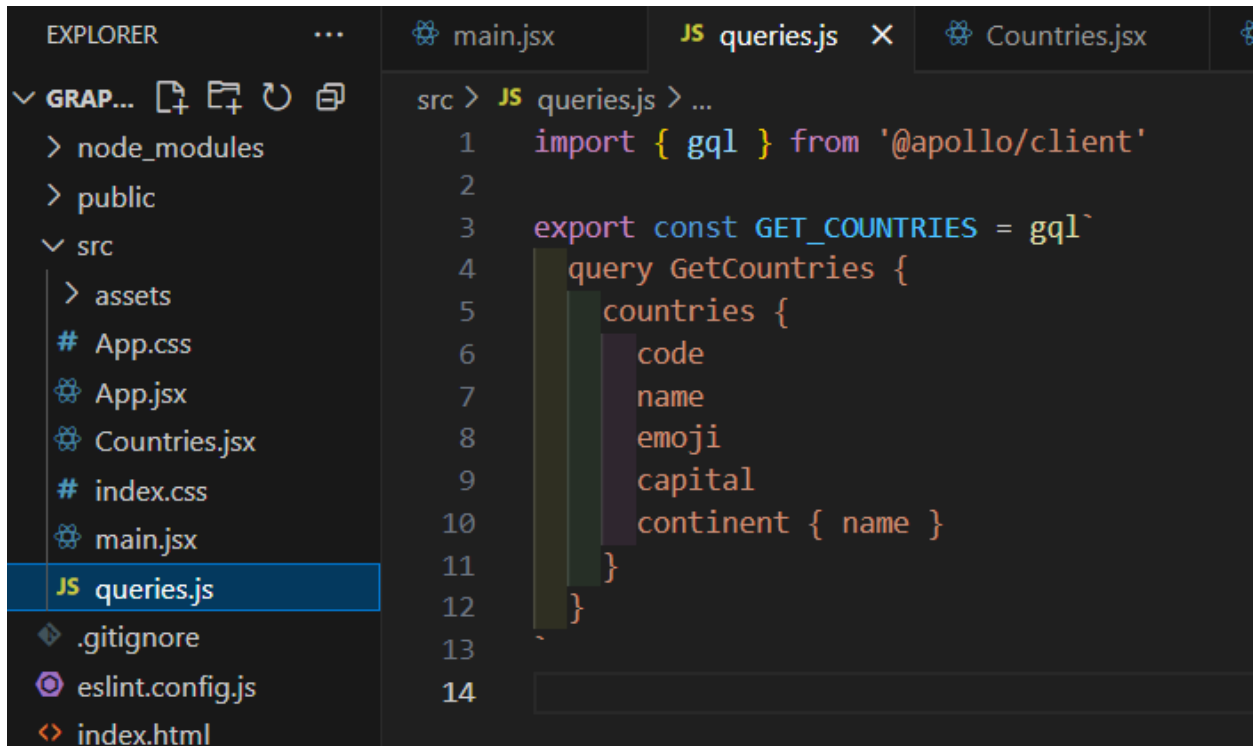
```
src > Countries.jsx > ...
1  import React from "react"
2  import { useQuery } from "@apollo/client"
3  import { GET_COUNTRIES } from "../queries.js"
4
5  function Countries() {
6    const { loading, error, data } = useQuery(GET_COUNTRIES)
7
8    if (loading) return (
9      <div className="loading-state">
10        <div className="loading-spinner"></div>
11        <p>Loading countries...</p>
12      </div>
13    )
14
15    if (error) return (
16      <div className="error-state">
17        <div className="error-icon">▲</div>
18        <p>Error: {error.message}</p>
19      </div>
20    )
21
22    return (
23      <div className="countries-container">
24        <div className="countries-header">
25          <h2 className="countries-title">Explore Countries</h2>
26          <p className="countries-count">{data.countries.length} countries found</p>
27        </div>
28
29        <div className="countries-grid">
30          {data.countries.map((country) => (
31            <div key={country.code} className="country-card">
32              <div className="country-flag">
33                {country.emoji}
34              </div>
35              <div className="country-info">
36                <h3 className="country-name">{country.name}</h3>
37                <div className="country-details">
```

node_modules
public
src
assets
App.css
App.jsx
Countries.jsx
index.css
main.jsx
queries.js
.gitignore
eslint.config.js
index.html
package-lock.json
package.json
README.md
vite.config.js

OUTLINE
TIMELINE

▲ 0

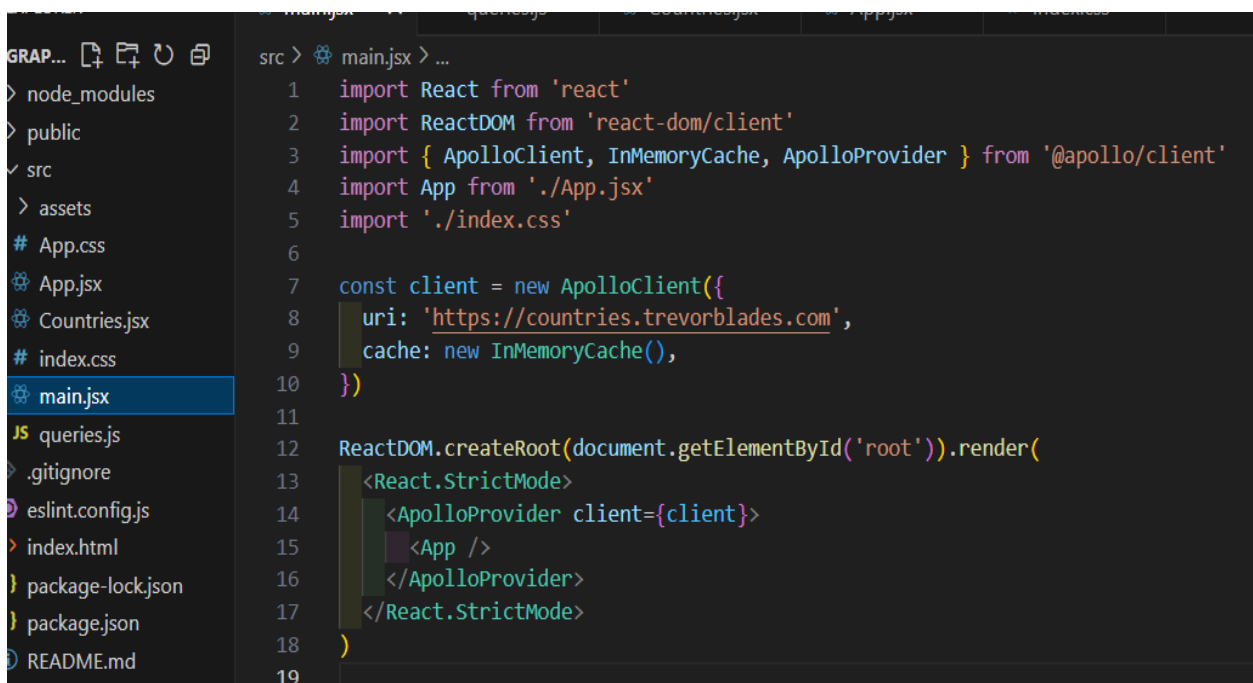
Queries.js



The screenshot shows the VS Code editor with the 'queries.js' file open. The Explorer sidebar on the left shows the project structure with 'src' expanded, listing files like 'App.css', 'App.jsx', 'Countries.jsx', 'index.css', 'main.jsx', 'queries.js' (selected), '.gitignore', 'eslint.config.js', and 'index.html'. The main editor area shows the code for 'queries.js' with line numbers 1 through 14. The code imports 'gql' from '@apollo/client' and exports a query named 'GET_COUNTRIES' which is used to fetch country data with fields like code, name, emoji, capital, and continent.

```
src > JS queries.js > ...
1  import { gql } from '@apollo/client'
2
3  export const GET_COUNTRIES = gql`
4    query GetCountries {
5      countries {
6        code
7        name
8        emoji
9        capital
10       continent { name }
11     }
12   }
13
14
```

Main.jsx



The screenshot shows the VS Code editor with the 'main.jsx' file open. The Explorer sidebar on the left shows the project structure with 'src' expanded, listing files like 'App.css', 'App.jsx', 'Countries.jsx', 'index.css', 'main.jsx' (selected), 'queries.js', '.gitignore', 'eslint.config.js', 'index.html', 'package-lock.json', 'package.json', and 'README.md'. The main editor area shows the code for 'main.jsx' with line numbers 1 through 19. The code imports React, ReactDOM, ApolloClient, InMemoryCache, and ApolloProvider from '@apollo/client', and imports App from './App.jsx' and index.css from './index.css'. It then creates an ApolloClient instance with a URI and an InMemoryCache, and renders the App component within a StrictMode and ApolloProvider context.

```
src > main.jsx > ...
1  import React from 'react'
2  import ReactDOM from 'react-dom/client'
3  import { ApolloClient, InMemoryCache, ApolloProvider } from '@apollo/client'
4  import App from './App.jsx'
5  import './index.css'
6
7  const client = new ApolloClient({
8    uri: 'https://countries.trevorblades.com',
9    cache: new InMemoryCache(),
10  })
11
12  ReactDOM.createRoot(document.getElementById('root')).render(
13    <React.StrictMode>
14      <ApolloProvider client={client}>
15        <App />
16      </ApolloProvider>
17    </React.StrictMode>
18  )
19
```

OUTPUT



Countries Explorer

Lab Activity 1 — Powered by Apollo Client & GraphQL

Explore Countries

250 countries found

AD

Andorra

CODEAD

CAPITALAndorra la Vella

CONTINENTEurope

AE

United Arab Emirates

CODEAE

CAPITALAbu Dhabi

CONTINENTAsia

AF

Afghanistan

CODEAF

CAPITALKabul

CONTINENTAsia

AG

Antigua and Barbuda

CODEAG

CAPITALSaint John's

CONTINENTNorth America

AI

Anguilla

CODEAI

CAPITALThe Valley

CONTINENTNorth America

AL

Albania

CODEAL

CAPITALTirana

CONTINENTEurope

AM

Armenia

CODEAM

CAPITALYerevan

CONTINENTAsia

AO

Angola

CODEAO

CAPITALLuanda

CONTINENTAfrica

AQ

Antarctica

AR

Argentina

AS

American Samoa

AT

Austria



Countries Explorer

Lab Activity 1 — Powered by Apollo Client & GraphQL

CONTINENTEurope

CONTINENTAsia

CONTINENTAsia

CONTINENTNorth America

AI

Anguilla

CODEAI

CAPITALThe Valley

CONTINENTNorth America

AL

Albania

CODEAL

CAPITALTirana

CONTINENTEurope

AM

Armenia

CODEAM

CAPITALYerevan

CONTINENTAsia

AO

Angola

CODEAO

CAPITALLuanda

CONTINENTAfrica

AQ

Antarctica

AR

Argentina

AS

American Samoa

AT

Austria



Countries Explorer

Lab Activity 1 — Powered by Apollo Client & GraphQL

<div>AU</div> <div>Australia</div> <div>CODE AU</div> <div>CAPITAL Canberra</div> <div>CONTINENT Oceania</div>	<div>AW</div> <div>Aruba</div> <div>CODE AW</div> <div>CAPITAL Oranjestad</div> <div>CONTINENT North America</div>	<div>AX</div> <div>Åland</div> <div>CODE AX</div> <div>CAPITAL Mariehamn</div> <div>CONTINENT Europe</div>	<div>AZ</div> <div>Azerbaijan</div> <div>CODE AZ</div> <div>CAPITAL Baku</div> <div>CONTINENT Asia</div>
<div>BA</div> <div>Bosnia and Herzegovina</div> <div>CODE BA</div> <div></div> <div></div>	<div>BB</div> <div>Barbados</div> <div>CODE BB</div> <div></div> <div></div>	<div>BD</div> <div>Bangladesh</div> <div>CODE BD</div> <div></div> <div></div>	<div>BE</div> <div>Belgium</div> <div>CODE BE</div> <div></div> <div></div>