

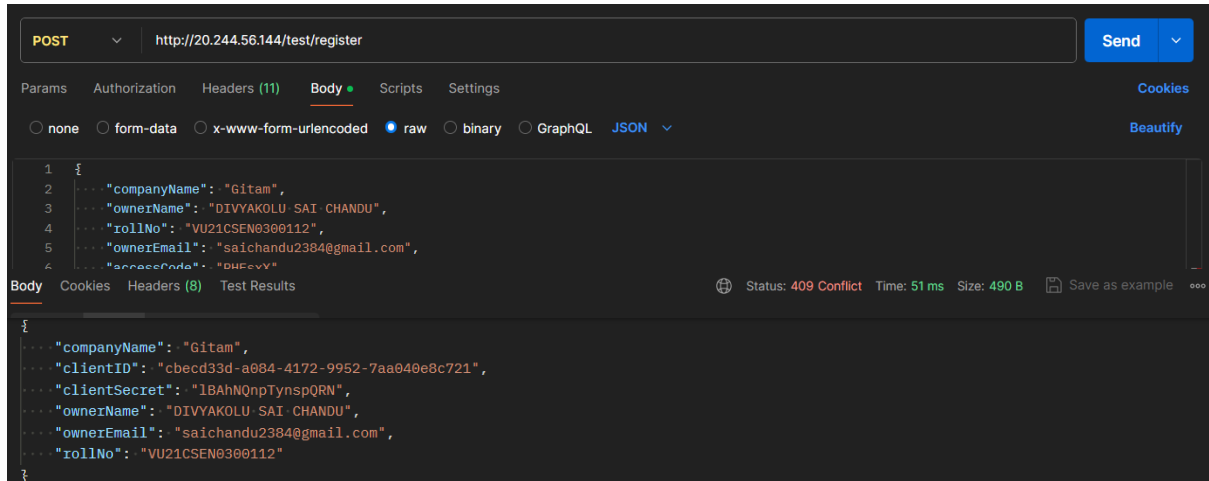
AFFORDMED TECH CHALLENGE

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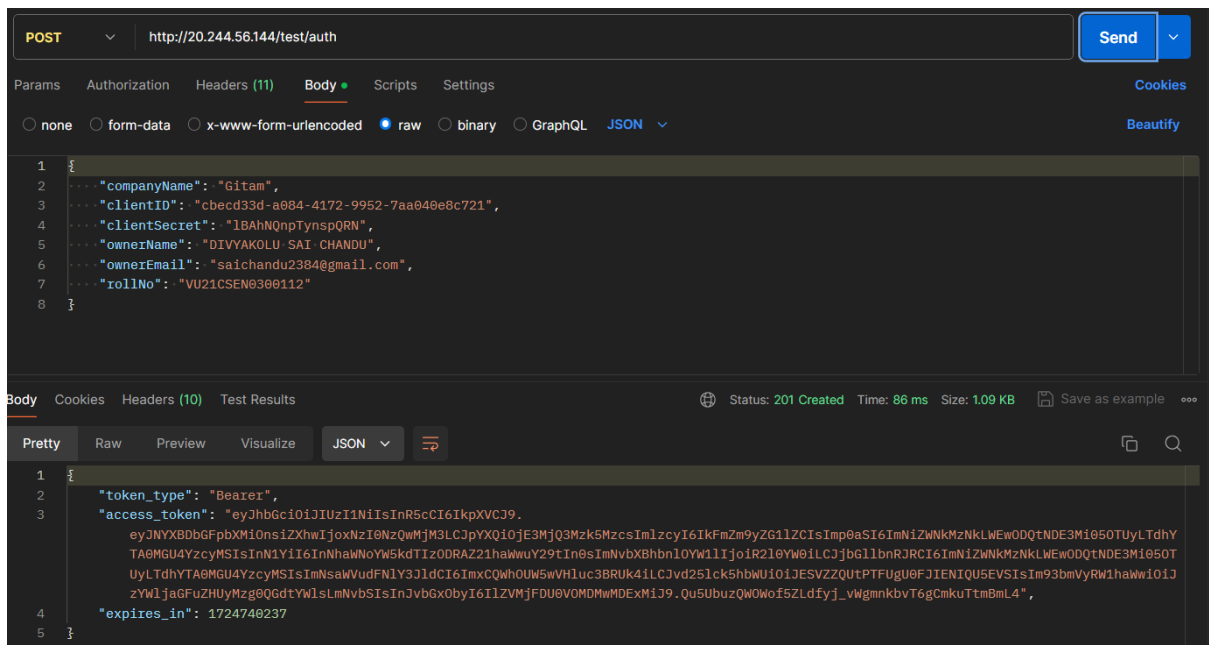
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REGISTRATION:



AUTHENTICATION:



QUESTION-1:

SWAGGER UI RETURN TOP N PRODUCTS:

REQUEST:

GET /categories/{categoryname}/products Get Products

Parameters

Name	Description
categoryname * required string (path)	Laptop
n integer (query)	10
minPrice integer (query)	1
maxPrice integer (query)	10000
company string (query)	AMZ <small>pattern: ^([A-Z][FLP]SNP PIYN AZO)\$</small>
page integer (query)	1
sort_by string (query)	price <small>pattern: ^([rating price company discount])\$</small>
order string (query)	asc <small>pattern: ^([asc desc])\$</small>

RESPONSE:

Responses

Curl

```
curl -X 'GET' \
  'http://localhost:7878/categories/Laptop/products?n=10&minPrice=1&maxPrice=10000&company=AMZ&page=1&sort_by=price&order=asc' \
  -H 'accept: application/json'
```

Request URL

```
http://localhost:7878/categories/Laptop/products?n=10&minPrice=1&maxPrice=10000&company=AMZ&page=1&sort_by=price&order=asc
```

Server response

Code	Details
200	<p>Response body</p> <pre>{ { "productName": "Laptop 8", "company": "AMZ", "price": 511, "rating": 4.35, "discount": 87, "availability": "out-of-stock" }, { "productName": "Laptop 1", "company": "AMZ", "price": 1809, "rating": 4.79, "discount": 21, "availability": "out-of-stock" }, { "productName": "Laptop 13", "company": "AMZ", "price": 1266, "rating": 4.18, "discount": 45, "availability": "out-of-stock" } }</pre>

Code

Details

200

Response body

```
{
  "productName": "Laptop 1",
  "company": "AMZ",
  "price": 2236,
  "rating": 3.75,
  "discount": 63,
  "availability": "out-of-stock"
},
{
  "productName": "Laptop 11",
  "company": "AMZ",
  "price": 2552,
  "rating": 4.42,
  "discount": 70,
  "availability": "out-of-stock"
},
{
  "productName": "Laptop 11",
  "company": "AMZ",
  "price": 5683,
  "rating": 4.09,
  "discount": 56,
  "availability": "yes"
},
{
  "productName": "Laptop 5",
  "company": "AMZ"
}
```

Download

Response headers

```
content-length: 1128
content-type: application/json
date: Tue, 27 Aug 2024 06:08:02 GMT
server: uvicorn
```

Responses

Code	Description	Links
200	Successful Response	No links

200

Successful Response

No links

Media type

application/json

Controls Accept header

Example Value

Schema

```
{
  "productName": "string",
  "company": "string",
  "price": 0,
  "rating": 0,
  "discount": 0,
  "availability": "string"
}
```

422

Validation Error

No links

Media type

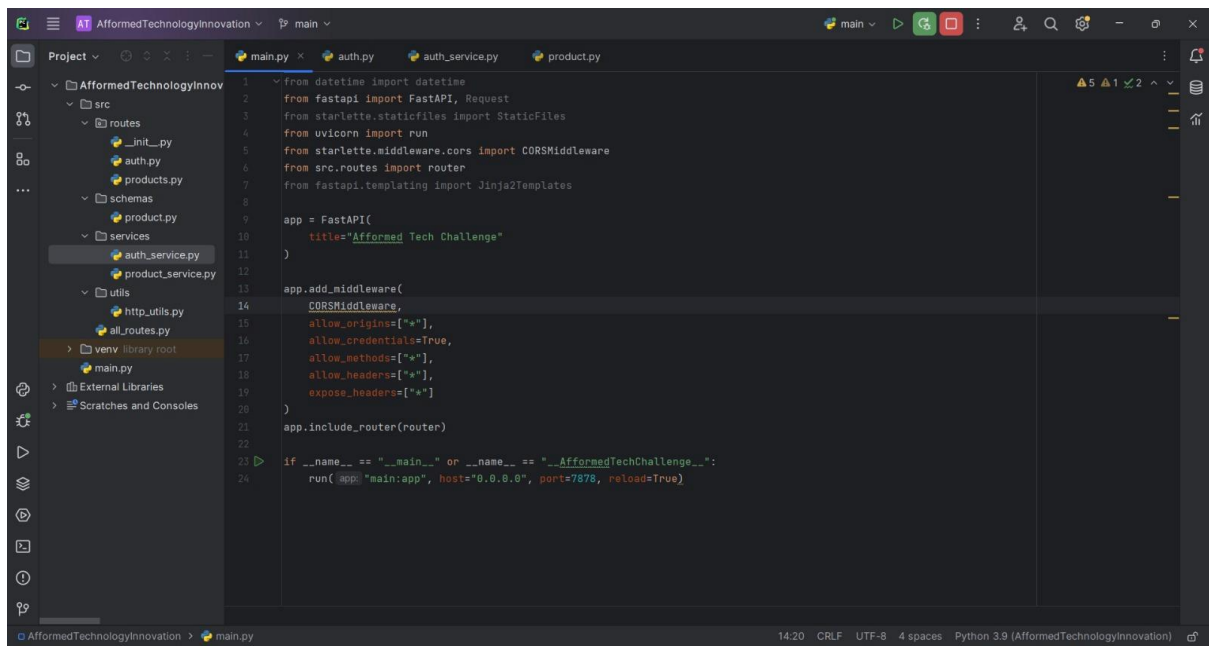
application/json

Example Value

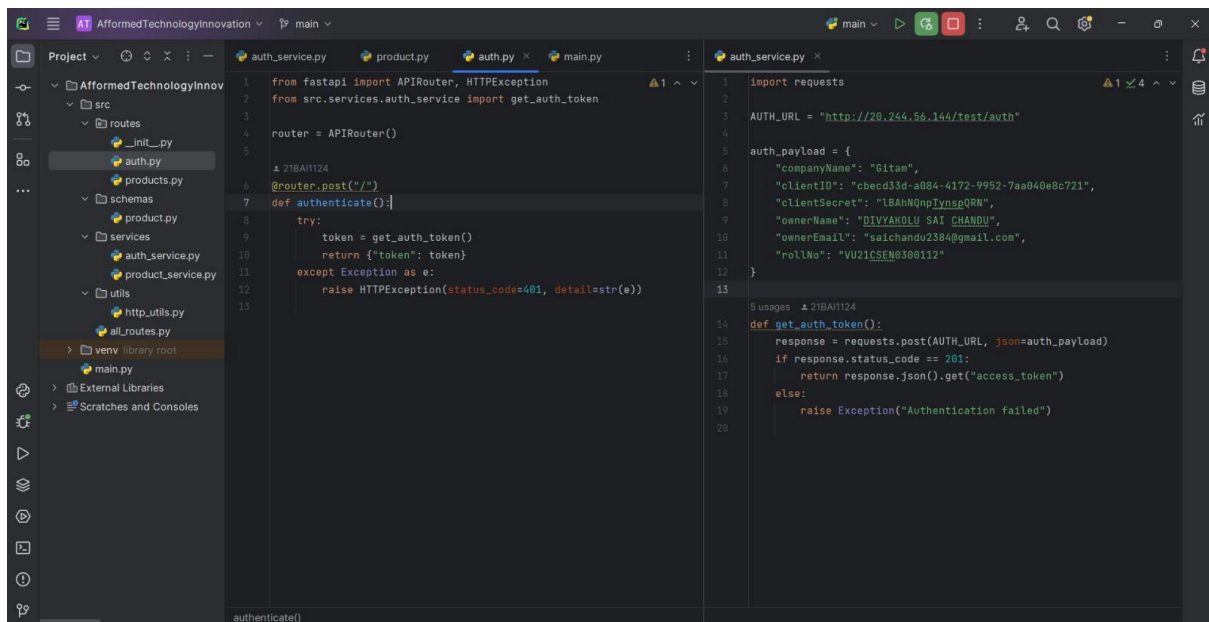
Schema

```
{
  "detail": [
    {
      "loc": [
        "string",
        0
      ],
      "msg": "string",
      "type": "string"
    }
  ]
}
```

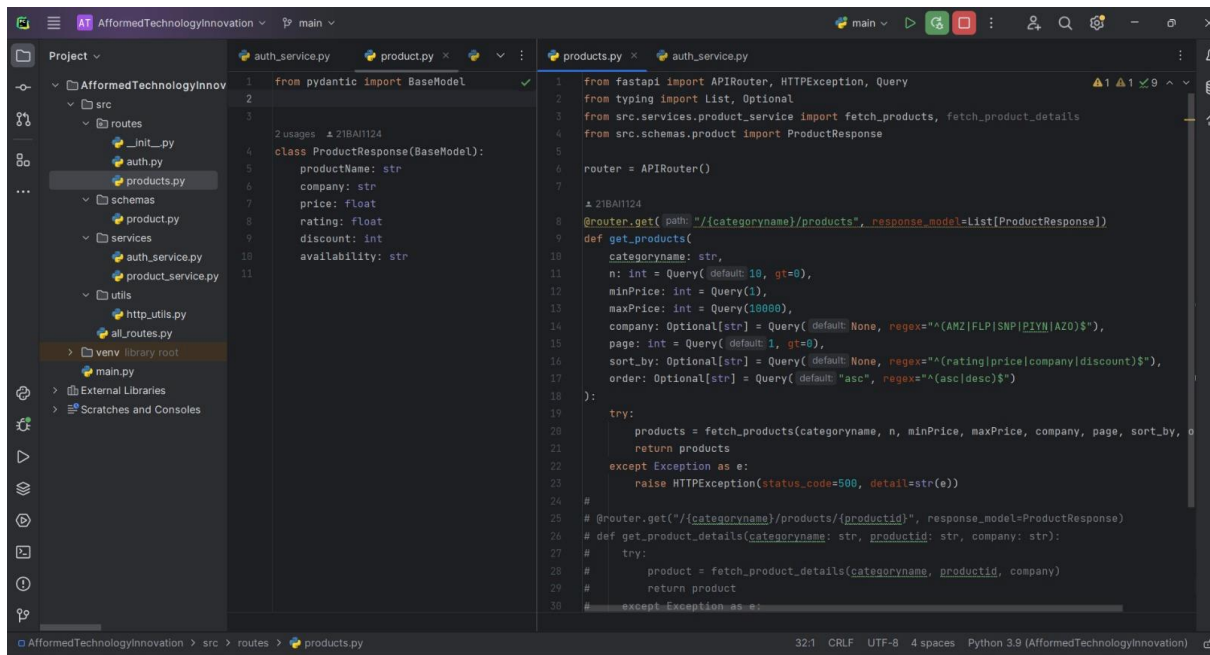
CODE:



```
1 from datetime import datetime
2 from fastapi import FastAPI, Request
3 from starlette.staticfiles import StaticFiles
4 from uvicorn import run
5 from starlette.middleware.cors import CORSMiddleware
6 from src.routes import router
7 from fastapi.templating import Jinja2Templates
8
9 app = FastAPI(
10     title="Afformed Tech Challenge"
11 )
12
13 app.add_middleware(
14     CORSMiddleware,
15     allow_origins=["*"],
16     allow_credentials=True,
17     allow_methods=["*"],
18     allow_headers=["*"],
19     expose_headers=["*"]
20 )
21 app.include_router(router)
22
23 if __name__ == "__main__" or __name__ == "__AfformedTechChallenge__":
24     run(app, host="0.0.0.0", port=7878, reload=True)
```

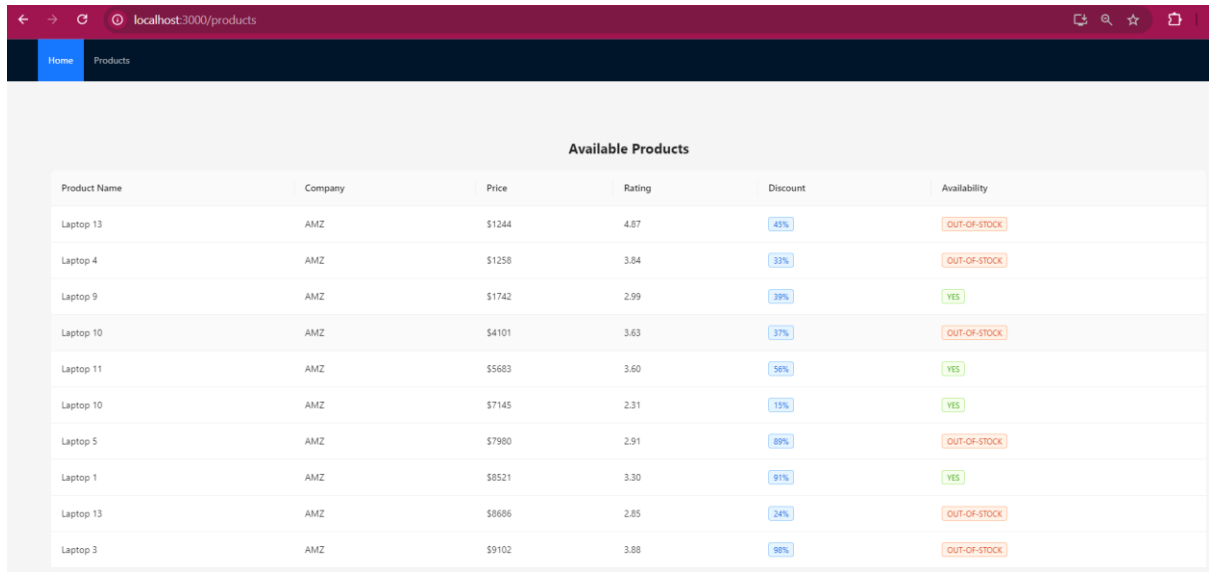


```
1 from fastapi import APIRouter, HTTPException
2 from src.services.auth_service import get_auth_token
3
4 router = APIRouter()
5
6 @router.post("/")
7 def authenticate():
8     try:
9         token = get_auth_token()
10         return {"token": token}
11     except Exception as e:
12         raise HTTPException(status_code=401, detail=str(e))
13
14 def get_auth_token():
15     response = requests.post(AUTH_URL, json=auth_payload)
16     if response.status_code == 201:
17         return response.json().get("access_token")
18     else:
19         raise Exception("Authentication failed")
```



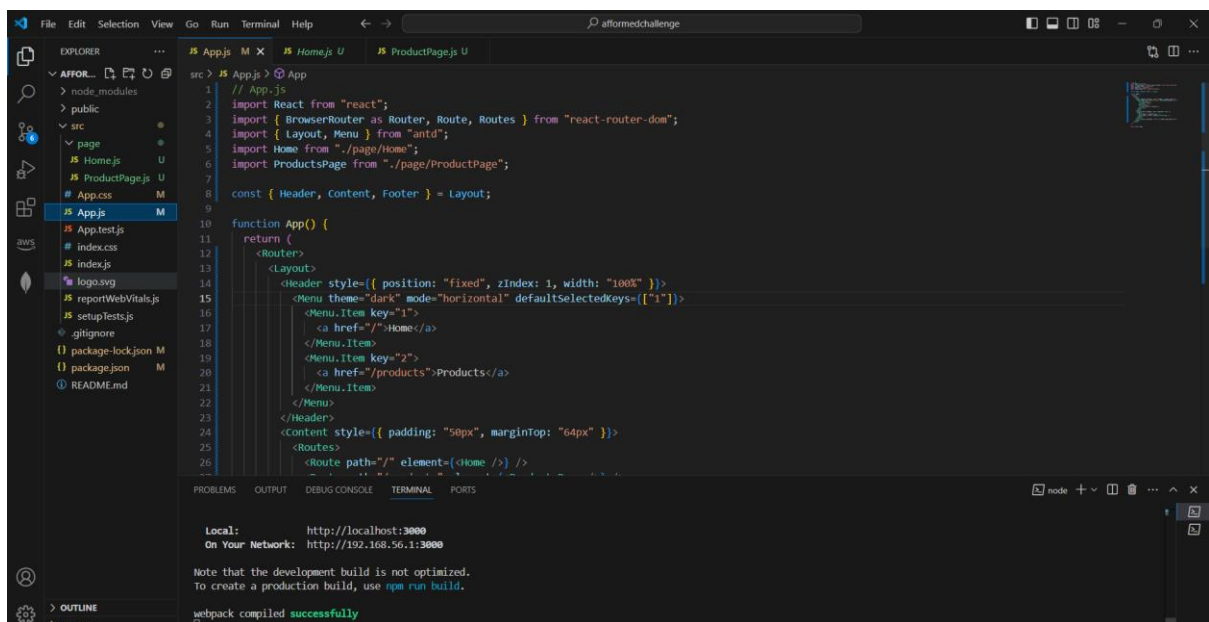
QUESTION-2:

React based Frontend Web Application to display the Top N Products



Available Products					
Product Name	Company	Price	Rating	Discount	Availability
Laptop 13	AMZ	\$1244	4.87	45%	OUT-OF-STOCK
Laptop 4	AMZ	\$1258	3.84	33%	OUT-OF-STOCK
Laptop 9	AMZ	\$1742	2.99	39%	YES
Laptop 10	AMZ	\$4101	3.63	37%	OUT-OF-STOCK
Laptop 11	AMZ	\$5683	3.60	56%	YES
Laptop 10	AMZ	\$7145	2.31	15%	YES
Laptop 5	AMZ	\$7980	2.91	89%	OUT-OF-STOCK
Laptop 1	AMZ	\$8521	3.30	91%	YES
Laptop 13	AMZ	\$8686	2.85	24%	OUT-OF-STOCK
Laptop 3	AMZ	\$9102	3.88	96%	OUT-OF-STOCK

CODE:



```
src > JS App.js > App
1 // App.js
2 import React from "react";
3 import { BrowserRouter as Router, Route, Routes } from "react-router-dom";
4 import { Layout, Menu } from "antd";
5 import Home from "../page/Home";
6 import ProductsPage from "../page/ProductPage";
7
8 const { Header, Content, Footer } = Layout;
9
10 function App() {
11   return (
12     <Router>
13       <Layout>
14         <Header style={{ position: "fixed", zIndex: 1, width: "100%" }}>
15           <Menu theme="dark" mode="horizontal" defaultSelectedKeys={['1']}>
16             <Menu.Item key="1">
17               <a href="/">Home</a>
18             </Menu.Item>
19             <Menu.Item key="2">
20               <a href="/products">Products</a>
21             </Menu.Item>
22           </Menu>
23         </Header>
24         <Content style={{ padding: "50px", marginTop: "64px" }}>
25           <Routes>
26             <Route path="/" element={<Home />} />
27             <Route path="/products" element={<ProductsPage />} />
28           </Routes>
29         </Content>
30       </Layout>
31     </Router>
32   );
33 }
34
35 export default App;
```

Local: http://localhost:3000
On Your Network: http://192.168.56.1:3000

Note that the development build is not optimized.
To create a production build, use `npm run build`.

webpack compiled successfully

The screenshot shows the Visual Studio Code editor with the Explorer sidebar on the left. The Explorer sidebar shows a project structure for 'AFFORMEDCHALLENGE' with folders 'node_modules', 'public', and 'src'. Inside 'src', there is a 'page' folder containing 'Home.js' (selected), 'ProductPage.js', 'App.css', 'App.js', 'App.test.js', 'index.css', 'index.js', 'logo.svg', 'reportWebVitals.js', and 'setupTests.js'. The main editor area displays the code for 'Home.js'.

```
src > page > JS Home.js > Home
1 // src/pages/Home.js
2 import React from "react";
3
4 const Home = () => {
5   return (
6     <div style={{ textAlign: "center", marginTop: "50px" }}>
7       <h1>Welcome to the Product App</h1>
8       <p>Navigate to the Products page to view available laptops.</p>
9     </div>
10   );
11 }
12
13 export default Home;
14
```

The screenshot shows the Visual Studio Code editor with the Explorer sidebar on the left. The Explorer sidebar shows the same project structure as the first screenshot, but now 'ProductPage.js' is selected in the 'page' folder. The main editor area displays the code for 'ProductPage.js'.

```
src > page > JS ProductPage.js > ...
1 // src/pages/ProductsPage.js
2 import React, { useState, useEffect } from "react";
3 import { Table, Spin, Alert, Tag } from "antd";
4 import axios from "axios";
5
6 const ProductPage = () => {
7   const [products, setProducts] = useState([]);
8   const [loading, setLoading] = useState(true);
9   const [error, setError] = useState(null);
10
11   useEffect(() => {
12     axios
13       .get(
14         "http://192.168.107.153:7878/categories/Laptop/products?n=10&minPrice=1&maxPrice=10000&company=AMZ&page=1&sort_by=price&order=asc"
15       )
16       .then((response) => {
17         setProducts(response.data);
18         setLoading(false);
19       })
20       .catch((error) => {
21         setError(error.message);
22         setLoading(false);
23       });
24   }, []);
25
26   const columns = [
27
28   ];
29
30   return (
31     <div>
32       <h2>Products</h2>
33       <Table columns={columns}>
34         <tbody>
35           <tr>
36             <td>Loading...</td>
37           </tr>
38         </tbody>
39       </Table>
40       <Alert message={error} type="error" show={!!error} />
41     </div>
42   );
43 }
44
45 export default ProductPage;
46
```

Below the editor, the TERMINAL tab is active, showing the following output:

```
Local:      http://localhost:3000
On Your Network: http://192.168.56.1:3000

Note that the development build is not optimized.
To create a production build, use npm run build.

webpack compiled successfully
```