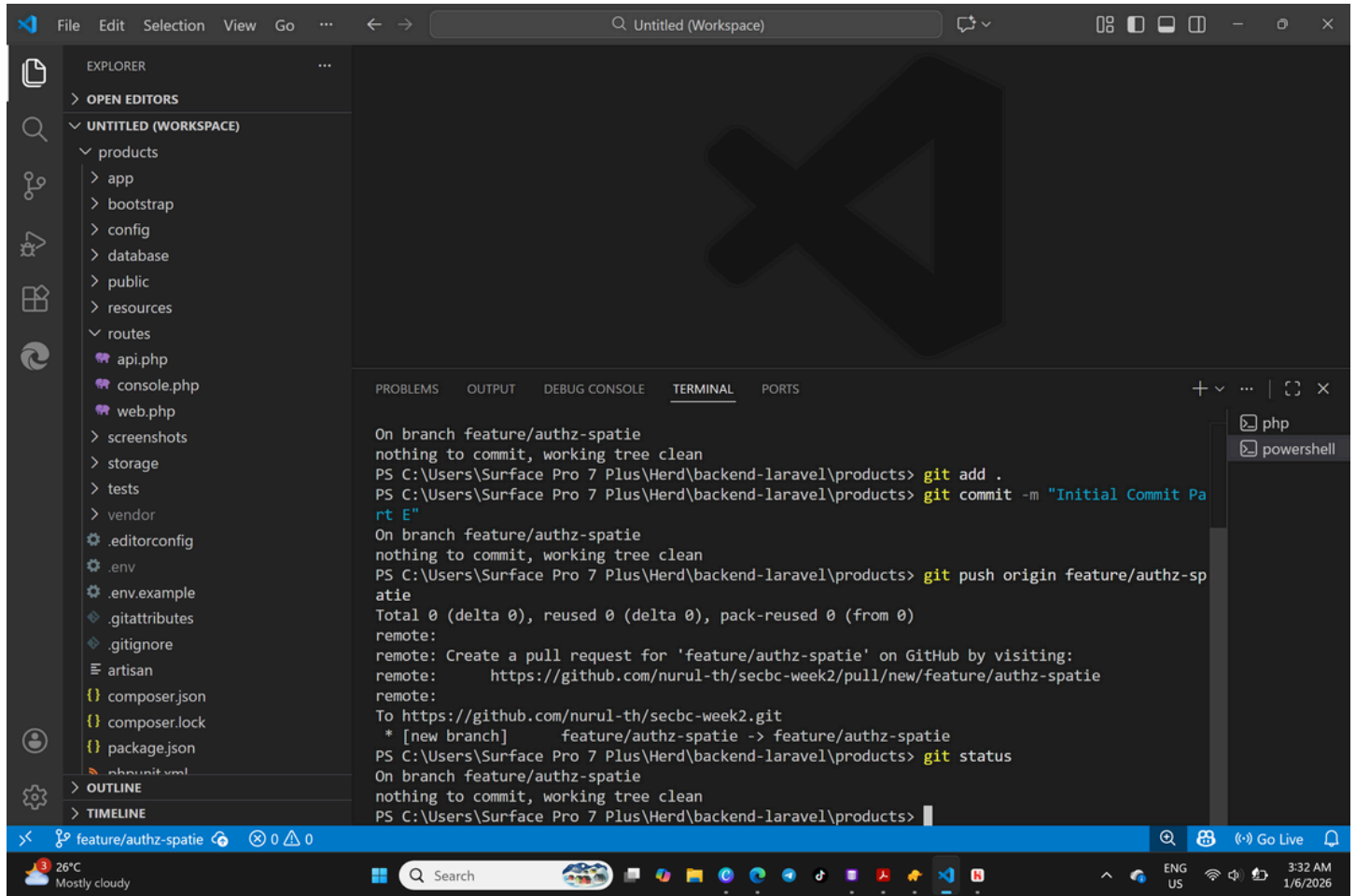


Part E I : Screenshot of git branch showing the new branch name + latest commit.

git init Initial Commit

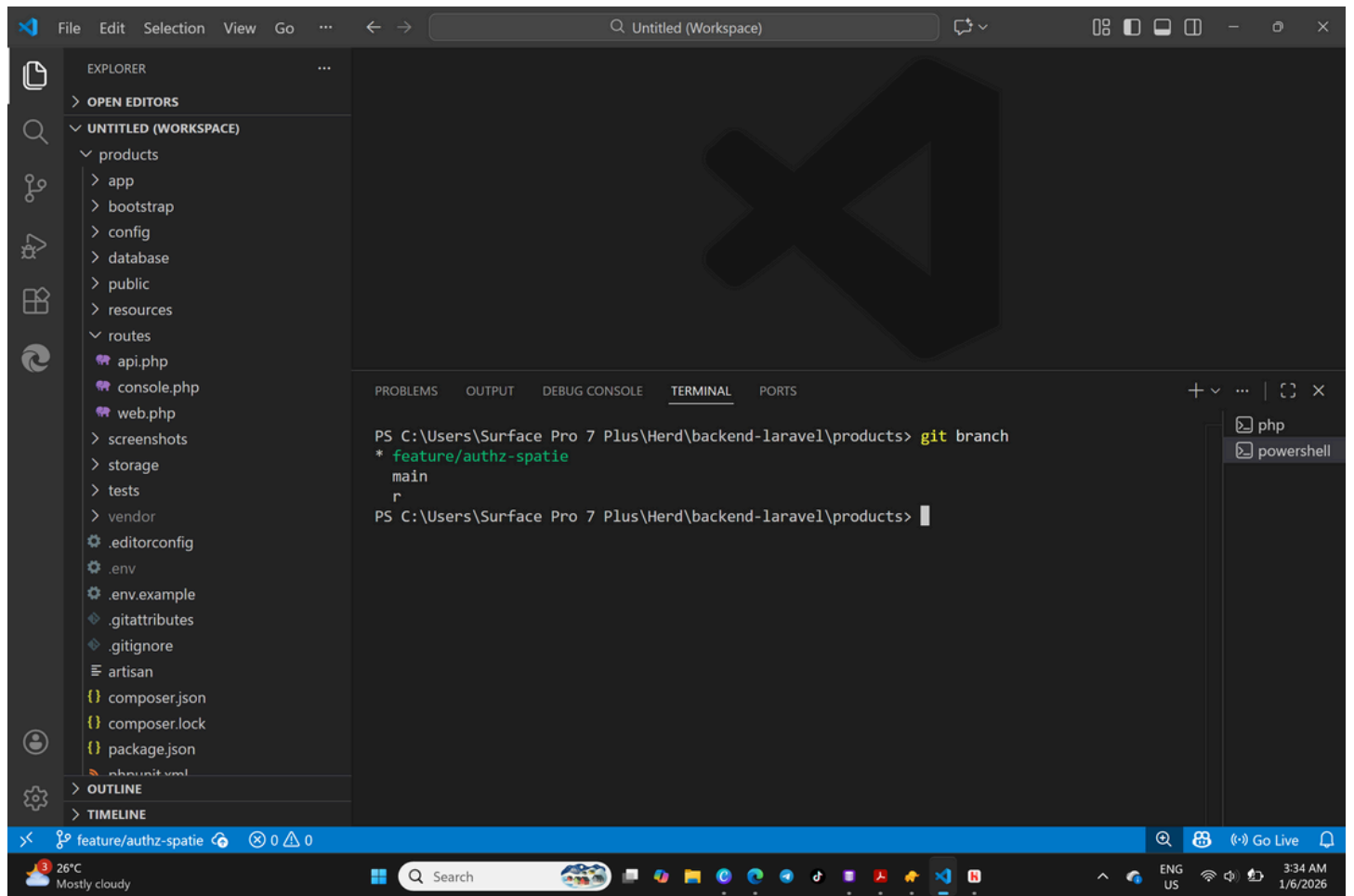


The screenshot shows the Visual Studio Code interface with a terminal window open. The terminal displays the following commands and output:

```
On branch feature/authz-spatie
nothing to commit, working tree clean
PS C:\Users\Surface Pro 7 Plus\Herd\backend-laravel\products> git add .
PS C:\Users\Surface Pro 7 Plus\Herd\backend-laravel\products> git commit -m "Initial Commit Part E"
On branch feature/authz-spatie
nothing to commit, working tree clean
PS C:\Users\Surface Pro 7 Plus\Herd\backend-laravel\products> git push origin feature/authz-spatie
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'feature/authz-spatie' on GitHub by visiting:
remote:   https://github.com/nurul-th/secbc-week2/pull/new/feature/authz-spatie
remote:
To https://github.com/nurul-th/secbc-week2.git
 * [new branch]      feature/authz-spatie -> feature/authz-spatie
PS C:\Users\Surface Pro 7 Plus\Herd\backend-laravel\products> git status
On branch feature/authz-spatie
nothing to commit, working tree clean
PS C:\Users\Surface Pro 7 Plus\Herd\backend-laravel\products>
```

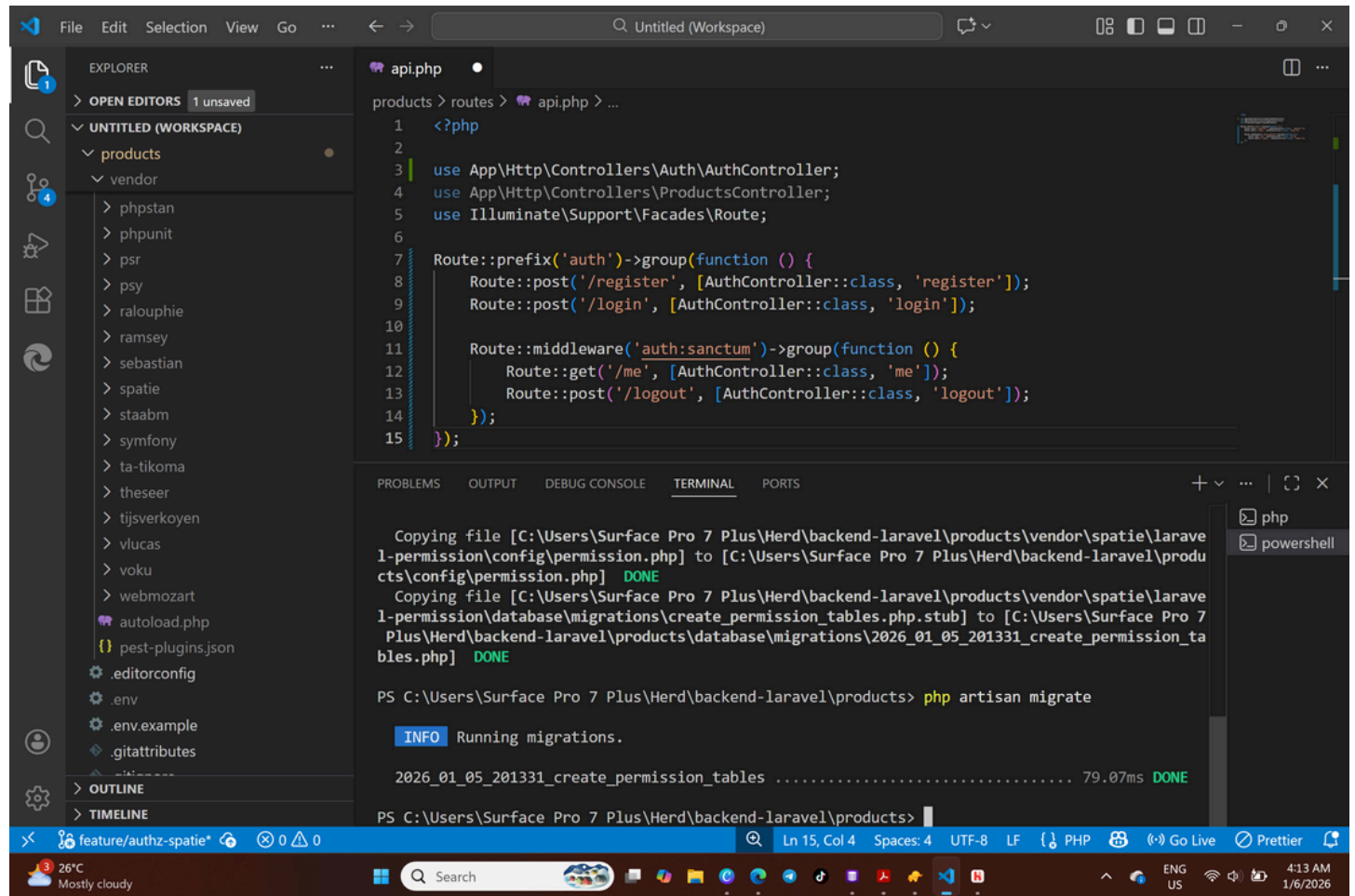
The Explorer view on the left shows the file structure of the project, including folders like 'products', 'app', 'bootstrap', 'config', 'database', 'public', 'resources', 'routes', and files like 'api.php', 'console.php', 'web.php', 'screenshots', 'storage', 'tests', 'vendor', '.editorconfig', '.env', '.env.example', '.gitattributes', '.gitignore', 'artisan', 'composer.json', 'composer.lock', 'package.json', and 'phpunit.xml'.

New branch created



Part E 3 : Screenshot of successful php artisan migrate / db:seed output.

Successful migration



```
products > routes > api.php > ...
1  <?php
2
3  use App\Http\Controllers\Auth\AuthController;
4  use App\Http\Controllers\ProductsController;
5  use Illuminate\Support\Facades\Route;
6
7  Route::prefix('auth')->group(function () {
8      Route::post('/register', [AuthController::class, 'register']);
9      Route::post('/login', [AuthController::class, 'login']);
10
11     Route::middleware('auth:sanctum')->group(function () {
12         Route::get('/me', [AuthController::class, 'me']);
13         Route::post('/logout', [AuthController::class, 'logout']);
14     });
15 });
```

```
PS C:\Users\Surface Pro 7 Plus\Herd\backend-laravel\products> php artisan migrate

INFO Running migrations.

2026_01_05_201331_create_permission_tables ..... 79.07ms DONE

PS C:\Users\Surface Pro 7 Plus\Herd\backend-laravel\products>
```

db:seed output

File Edit Selection View Go ...

Untitled (Workspace)

EXPLORER

OPEN EDITORS 1 unsaved

UNTITLED (WORKSPACE)

products

app

Http

Models

Product.php

User.php

Providers

bootstrap

config

database

factories

migrations

seeders

DatabaseSeeder.php M

RolesAndPermissionsSeed... U

.gitignore

public

resources

routes

api.php

console.php

web.php

screenshots

storage

tests

OUTLINE

TIMELINE

products > database > seeders > DatabaseSeeder.php > DatabaseSeeder > run

```
9 class DatabaseSeeder extends Seeder
16 public function run(): void
17 {
18     // User::factory(10)->create();
19
20     User::factory()->create([
21         'name' => 'Test User',
22         'email' => 'test@example.com',
23     ]);
24
25     $this->call(RolesAndPermissionsSeeder::class);
26 }
27
28
29
30
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
25 }
26
→ 27 $this->call(RolesAndPermissionsSeeder::class);
28
```

```
1 vendor\composer\ClassLoader.php:576
2 vendor\composer\ClassLoader.php:427
```

PS C:\Users\Surface Pro 7 Plus\Herd\backend-laravel\products> php artisan db:seed

INFO Seeding database.

Database\Seeders\RolesAndPermissionsSeeder RUNNING

Database\Seeders\RolesAndPermissionsSeeder 125 ms DONE

PS C:\Users\Surface Pro 7 Plus\Herd\backend-laravel\products>

feature/authz-spatie* 0 0 0

Ln 25, Col 55 Spaces: 4 UTF-8 LF PHP Go Live Prettier

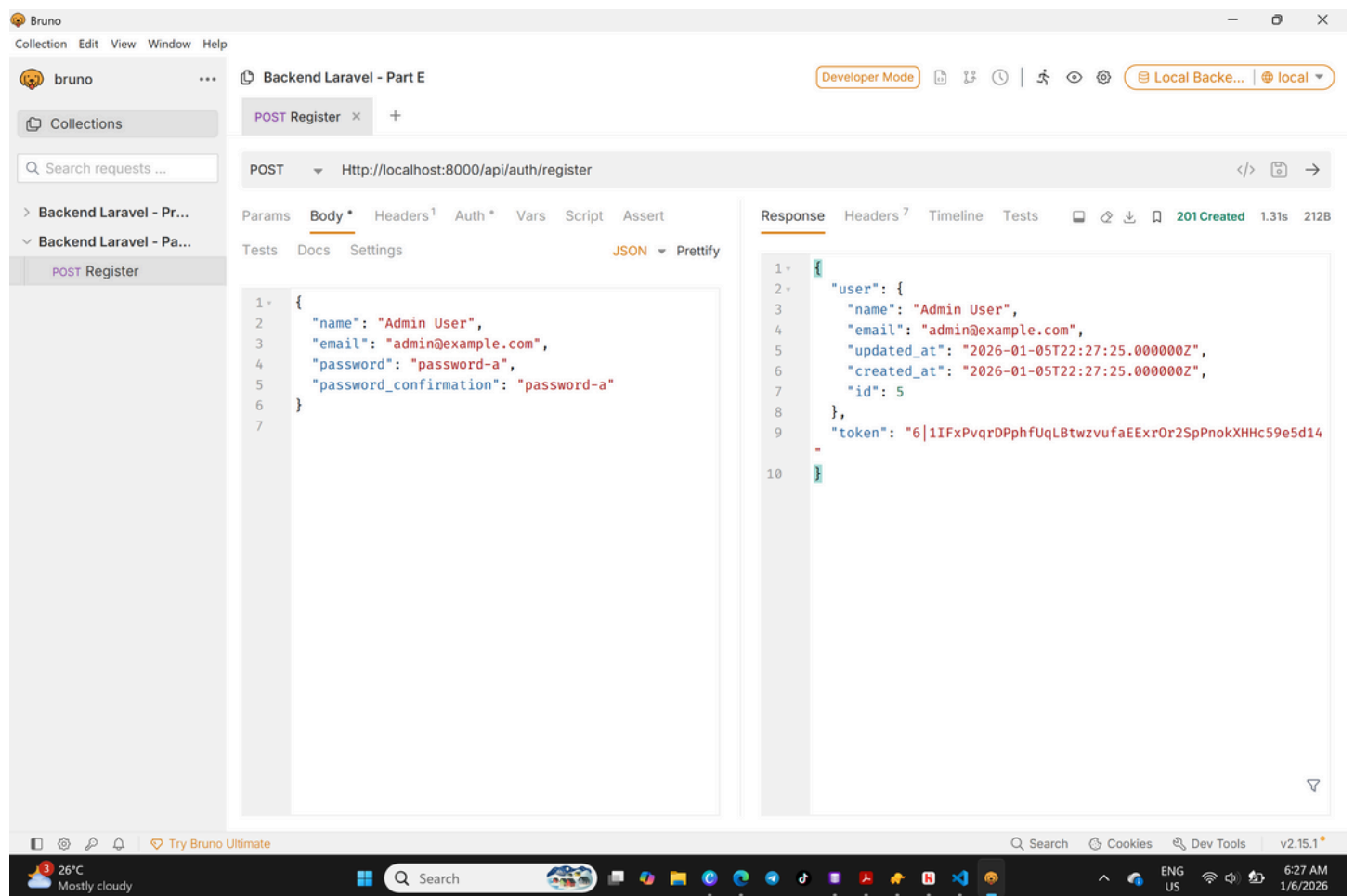
26°C Mostly cloudy

Search

ENG US 4:38 AM 1/6/2026

Part E 4 : Screenshot of API Testing With Bruno.

Register a user → 201



Login and obtain token → 200

The screenshot displays the Bruno application interface. On the left, a sidebar shows a collection named 'Backend Laravel - Part E' with two items: 'POST Register' and 'POST Login'. The 'POST Login' item is selected. The main workspace shows a POST request to 'http://localhost:8000/api/auth/login'. The request body is a JSON object with the following fields: 'email' (admin@example.com), 'password' (password-a), and 'token' (7|Bv1oDzugHfoIOECuQS8cJoJ4CFeLLGN0GdmmhObs78161a9d). The response is a 200 OK status with a JSON body containing user information and a token. The response body is: { "user": { "id": 5, "name": "Admin User", "email": "admin@example.com", "email_verified_at": null, "created_at": "2026-01-05T22:27:25.000000Z", "updated_at": "2026-01-05T22:27:25.000000Z" }, "token": "7|Bv1oDzugHfoIOECuQS8cJoJ4CFeLLGN0GdmmhObs78161a9d" }. The bottom of the screen shows a Windows taskbar with the date and time as 6:29 AM on 1/6/2026.

Collection Edit View Window Help

bruno ...

Backend Laravel - Part E

Developer Mode Local Backe... local

POST Login

POST http://localhost:8000/api/auth/login

Params Body Headers Auth Vars Script Assert

Tests Docs Settings JSON Prettify

```
1 {
2   "email": "admin@example.com",
3   "password": "password-a"
4 }
5
```

Response Headers Timeline Tests

```
1 {
2   "user": {
3     "id": 5,
4     "name": "Admin User",
5     "email": "admin@example.com",
6     "email_verified_at": null,
7     "created_at": "2026-01-05T22:27:25.000000Z",
8     "updated_at": "2026-01-05T22:27:25.000000Z"
9   },
10  "token": "7|Bv1oDzugHfoIOECuQS8cJoJ4CFeLLGN0GdmmhObs78161a9d"
11 }
```

200 OK 1.41s 237B

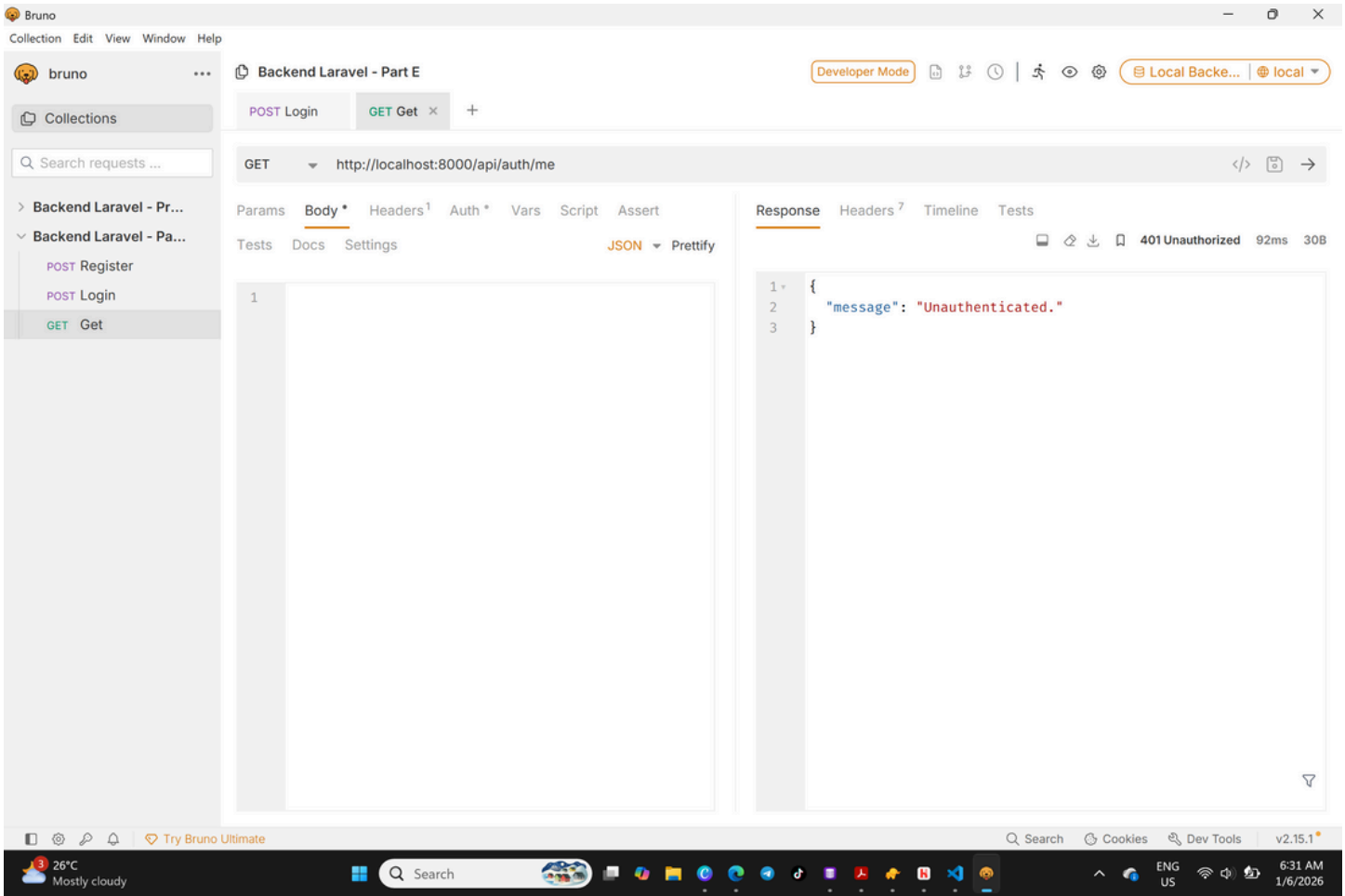
Try Bruno Ultimate

26°C Mostly cloudy

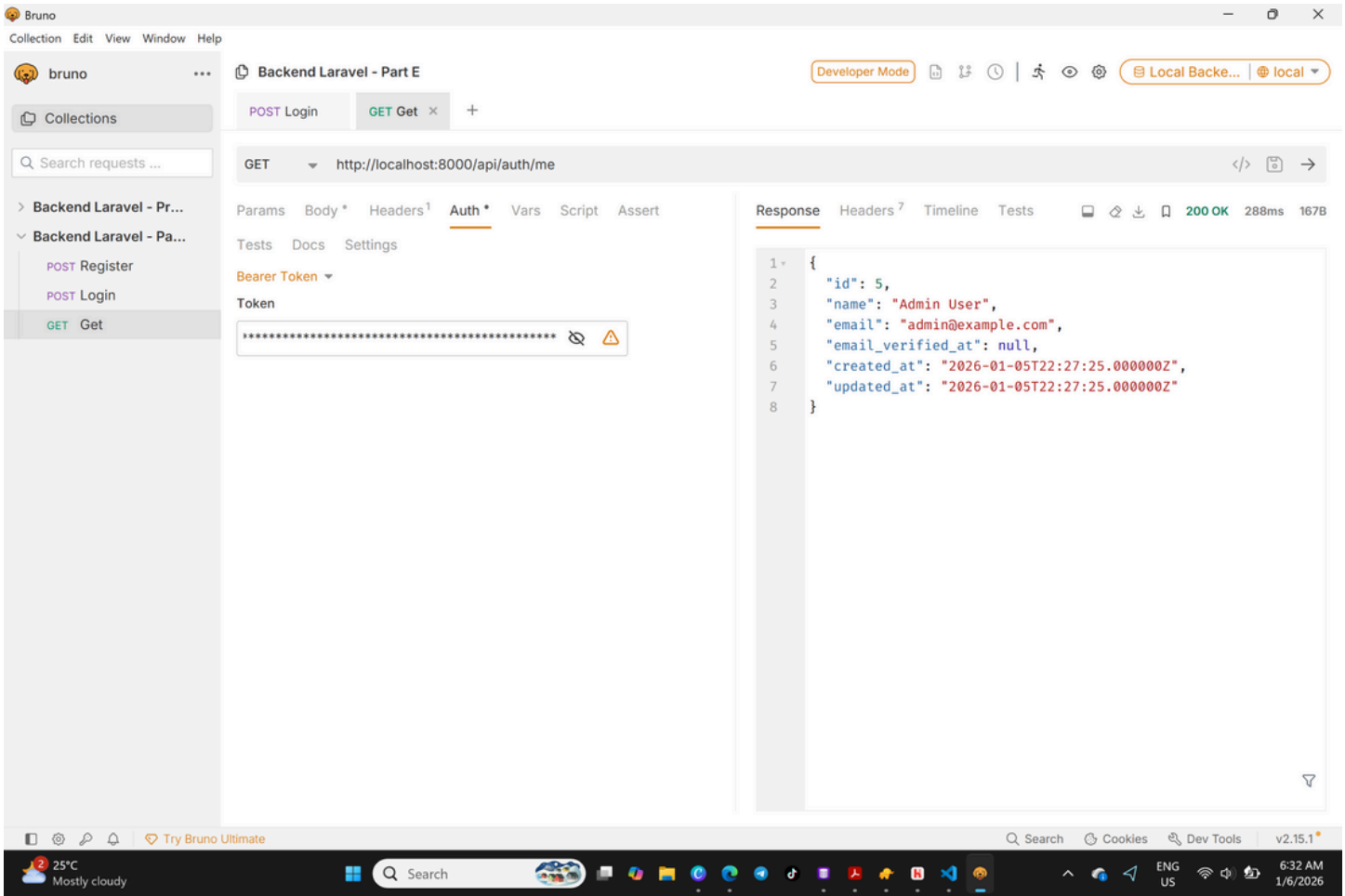
Search Cookies Dev Tools v2.15.1

6:29 AM 1/6/2026

Access GET /api/auth/me without token → 401



Access GET /api/auth/me with token → 200



Access POST /api/products as viewer → 403

*** failed to work to get output 403*

The screenshot shows the Bruno API client interface. On the left, a sidebar lists collections under 'My Workspace'. The main area displays a collection named 'Backend Laravel - Part E' with a sub-collection 'POST Post Product'. The selected item is a POST request to 'http://localhost:8000/api/products'. The request body is a JSON object:

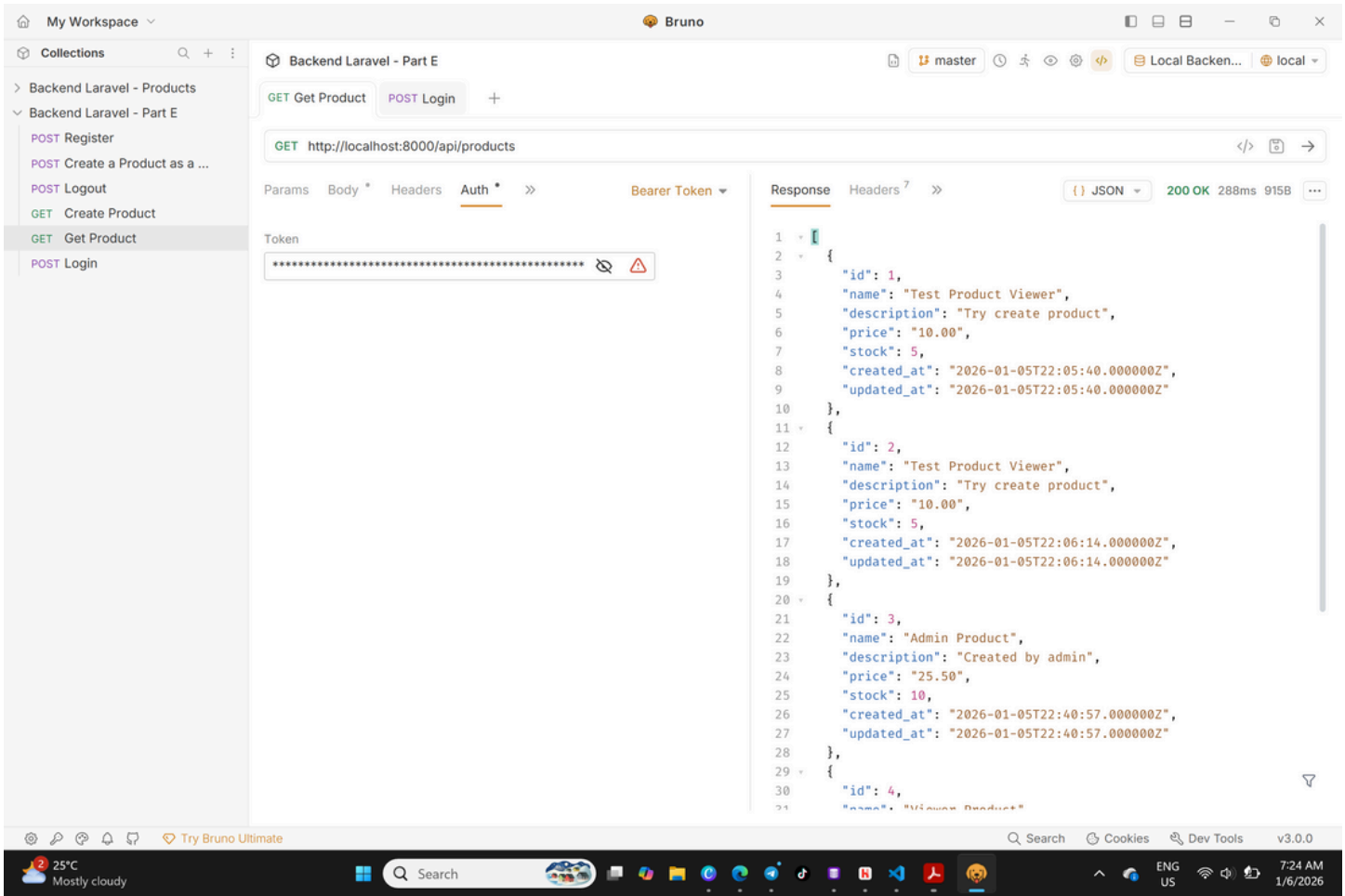
```
{  "name": "Viewer Product",  "description": "Fifth Test by viewer",  "price": 10,  "stock": 5}
```

. The response tab shows a 201 status code with the following JSON:

```
{  "success": true,  "data": {    "name": "Viewer Product",    "description": "Fifth Test by viewer",    "price": 10,    "stock": 5,    "updated_at": "2026-01-05T23:26:05.000000Z",    "created_at": "2026-01-05T23:26:05.000000Z",    "id": 6  }}
```

. The bottom status bar indicates the system is at 25°C, mostly cloudy, with a search bar and various utility icons.

Access GET /api/products as viewer → 200



Access POST /api/products as admin (or staff) → 201

Bruno

Collection Edit View Window Help

bruno ...

Collections

Search requests ...

Backend Laravel - Pr...

Backend Laravel - Pa...

POST Register

POST Login

GET Get

Backend Laravel - Part E

POST Login GET Get +

Developer Mode Local Backe... local

POST http://localhost:8000/api/products

Params Body* Headers¹ Auth* Vars Script Assert

Tests Docs Settings JSON Prettify

```
1 {
2   "name": "Admin Product",
3   "description": "Created by admin",
4   "price": 25.5,
5   "stock": 10
6 }
7
```

Response Headers⁷ Timeline Tests

201 Created 312ms 198B

```
1 {
2   "success": true,
3   "data": {
4     "name": "Admin Product",
5     "description": "Created by admin",
6     "price": 25.5,
7     "stock": 10,
8     "updated_at": "2026-01-05T22:40:57.000000Z",
9     "created_at": "2026-01-05T22:40:57.000000Z",
10    "id": 3
11  }
12 }
```

Try Bruno Ultimate

25°C Mostly cloudy

Search Cookies Dev Tools v2.15.1

6:41 AM 1/6/2026

Logout → 200

Bruno

Collection Edit View Window Help

bruno

Collections

Search requests ...

Backend Laravel - Pr...

Backend Laravel - Pa...

POST Register

POST Logout

GET Get

Backend Laravel - Part E

POST Logout GET Get

POST http://localhost:8000/api/auth/logout

Params Body Headers 1 Auth * Vars Script Assert

Tests Docs Settings

JSON Prettify

Response Headers 7 Timeline Tests

200 OK 410ms 24B

1 {

2 "message": "Logged out"

3 }

Try Bruno Ultimate

25°C Mostly cloudy

Search

ENG US

6:42 AM 1/6/2026