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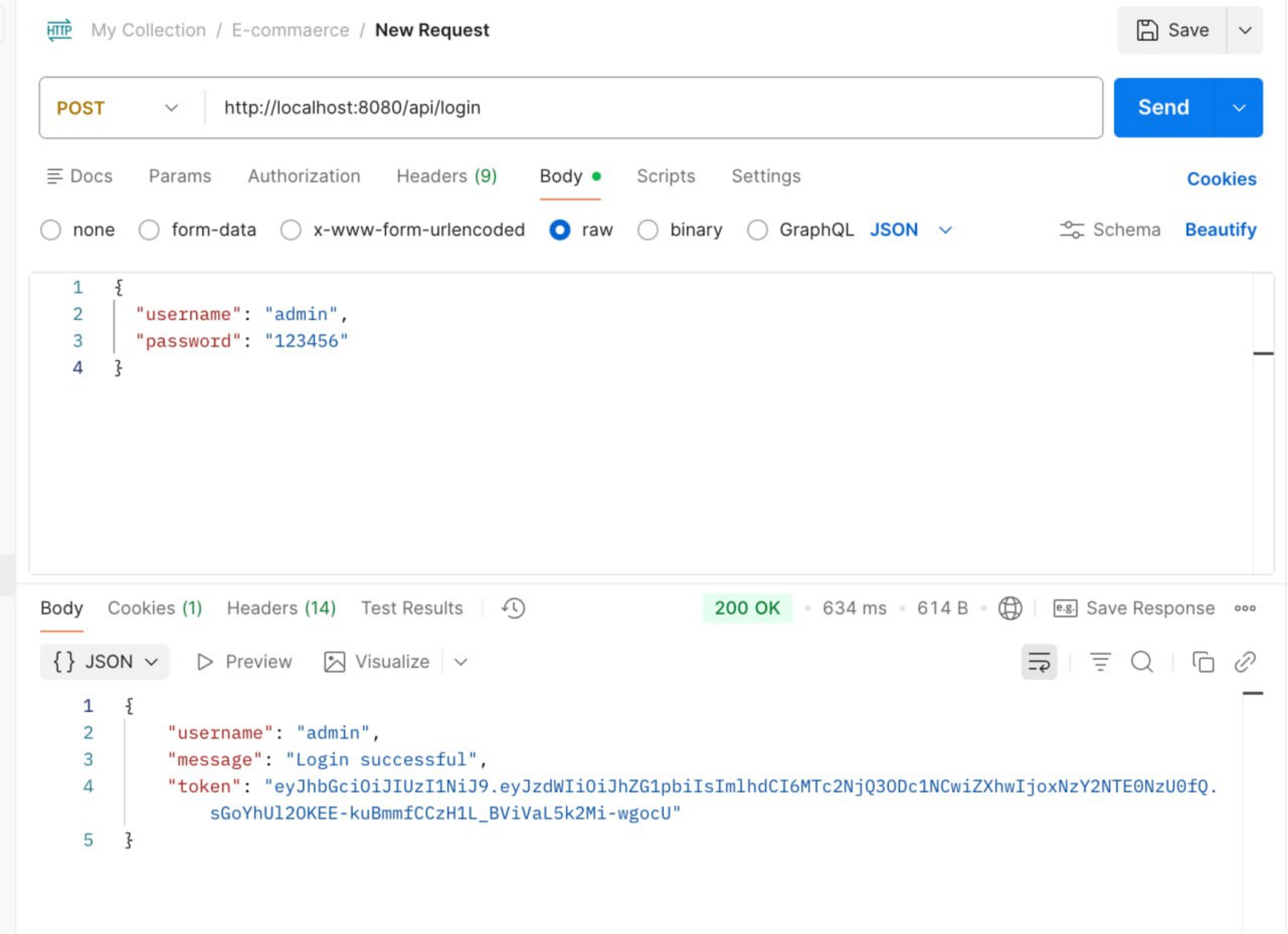
Project Progression

Project Name: Library tracking system

In the second week we have done some part such as:

- **update table schema**
    - change Id datatype from varchar to bigint
- **AuthController**
    - Created REST controller for authentication.
    - Exposed endpoints for **login** and **register**.
    - Integrated with `UserService`.
- **Login**
    - **LoginRequest**: username/email & password DTO implemented.
    - **LoginResponse**: returns auth result (message / token / user info).
    - Validation and error handling added.



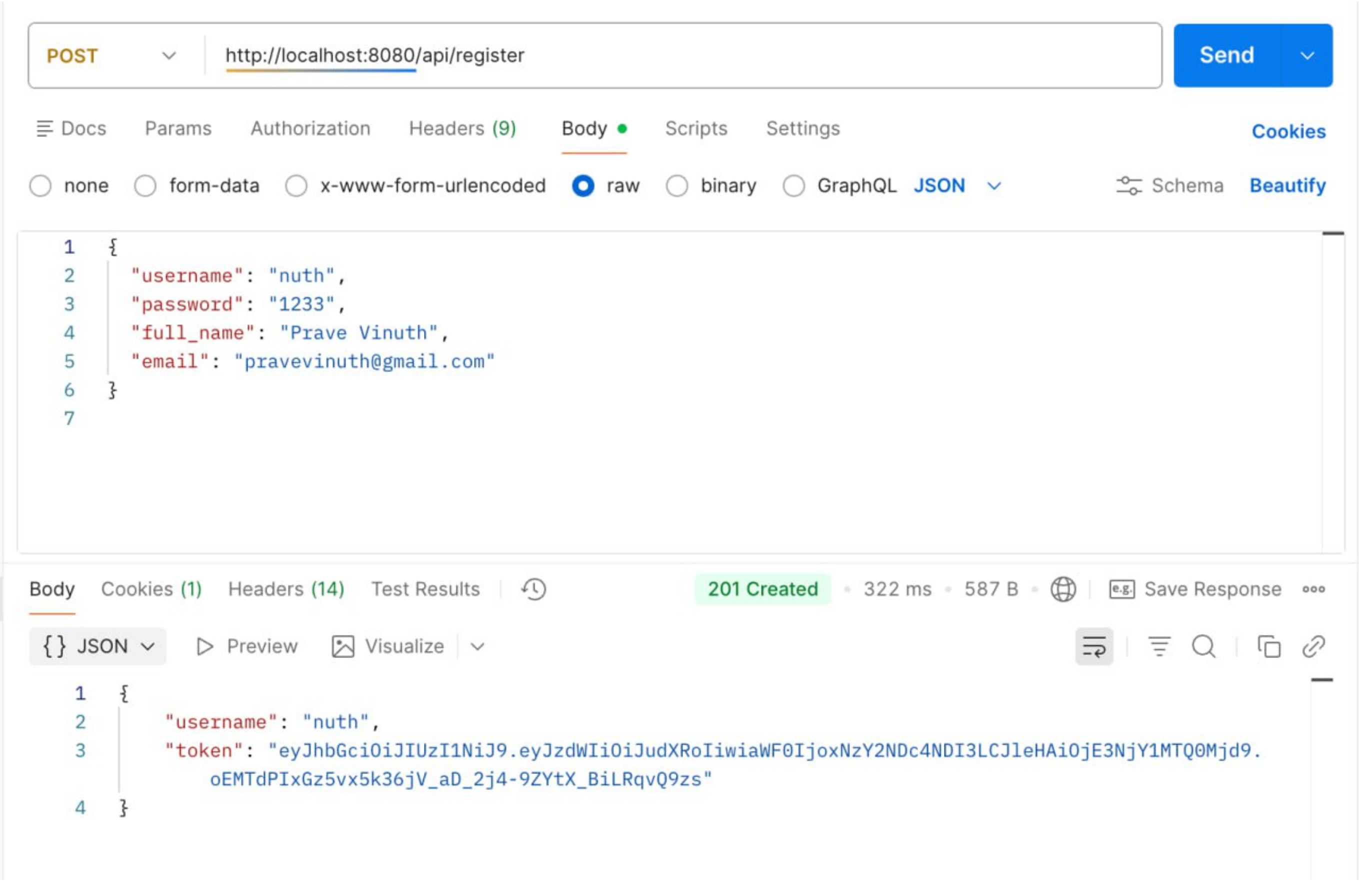
POST http://localhost:8080/api/login

```
{
  "username": "admin",
  "password": "123456"
}
```

200 OK • 634 ms • 614 B

```
{
    "username": "admin",
    "message": "Login successful",
    "token": "eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJhZG1pbiIsImlhdCI6MTc2NjQ3ODc1NCwiZXhwIjoxNzY2NTE0NzU0fQ.
        sGoYhUl2OKEE-kuBmmfCCzH1L_BViVaL5k2Mi-wgocU"
}
```

- **Register**
  - **RegisterRequest**: user input DTO (username, password, email, etc.).
  - **RegisterResponse**: registration status and user data.
  - Password encoding applied before saving.

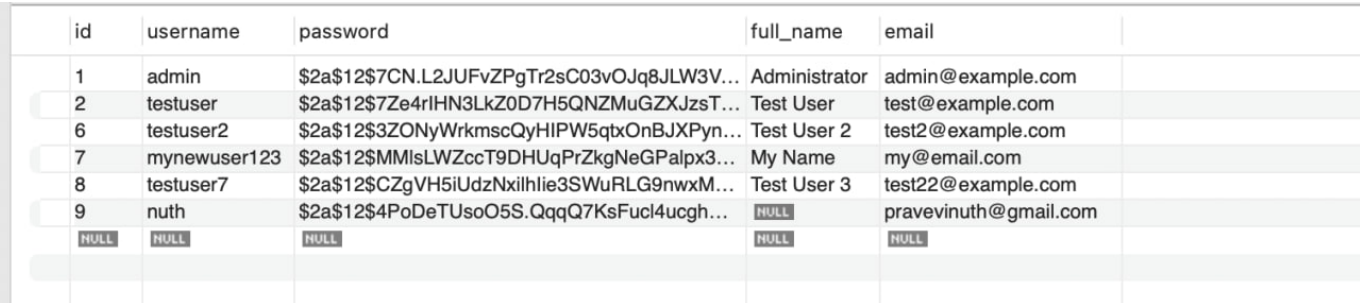


POST http://localhost:8080/api/register

```
{
  "username": "nuth",
  "password": "1233",
  "full_name": "Prave Vinuth",
  "email": "pravevinuth@gmail.com"
}
```

201 Created • 322 ms • 587 B

```
{
    "username": "nuth",
    "token": "eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJudXRoIiwiaWF0IjoxNzY2NDc4NDI3LCJleHAiOjE3NjY1MTQ0Mjd9.
        oEMTdPIxGz5vx5k36jV_aD_2j4-9ZYtX_BiLRqvQ9zs"
}
```



id	username	password	full_name	email
1	admin	$2a$12$7CN.L2JUFvZPgTr2sC03vOJq8JLW3V…	Administrator	admin@example.com
2	testuser	$2a$12$7Ze4rIHN3LkZ0D7H5QNZMuGZXJzsT…	Test User	test@example.com
6	testuser2	$2a$12$3ZONyWrkmscQyHIPW5qtxOnBJXPyn…	Test User 2	test2@example.com
7	mynewuser123	$2a$12$MMlsLWZccT9DHUqPrZkgNeGPalpx3…	My Name	my@email.com
8	testuser7	$2a$12$CZgVH5iUdzNxilhlie3SWuRLG9nwxM…	Test User 3	test22@example.com
9	nuth	$2a$12$4PoDeTUsoO5S.QqqQ7KsFucl4ucgh…	NULL	pravevinuth@gmail.com
NULL	NULL	NULL	NULL	NULL

- **UserService**
  - Business logic for login and registration.
  - User lookup and creation implemented.
  - Connected to repository and security components.
- **JwtFilter**
  - Implemented JWT authentication filter.
  - Extracts token from request header.
  - Validates JWT and sets authentication in SecurityContext.
  - JwtProperties
  - Configured JWT settings (secret key, expiration time).
  - Loaded values from application.yml / properties.
- **JwtUtil**

  - Implemented JWT generation and validation logic.
  - Extracts username and checks token expiration.
  - Used by AuthController and JwtFilter.
  - SecurityConfig
  - Configured Spring Security with JWT.
  - Disabled CSRF for REST API.
  - Defined public and protected endpoints.
  - Registered JwtFilter in security filter chain.