Problem Statement: JWT Authentication in MERN Paginated Product App

This MERN stack application demonstrates a product management system with:

- JWT-based login authentication

- Register and Login flow

- Paginated product listings

- Search, edit, and delete capabilities after login

The application allows any user to register with just a username and password. Upon login, the user receives a JWT token which is stored in localStorage. On successful login, the Product Table is displayed with Edit and Delete buttons enabled for all rows.

MongoDB Collection Schemas

User Schema:

{

  username: String,

  password: String (hashed with bcrypt)

}

Product Schema:

{

  name: String,

  price: Number,

  category: String,

  inStock: Boolean

}

Response Messages

Register:

- Success: 'Registration successful. You can now login.'

- Failure: 'Registration failed: <error message>'

Login:

- Success: Stores JWT token in localStorage
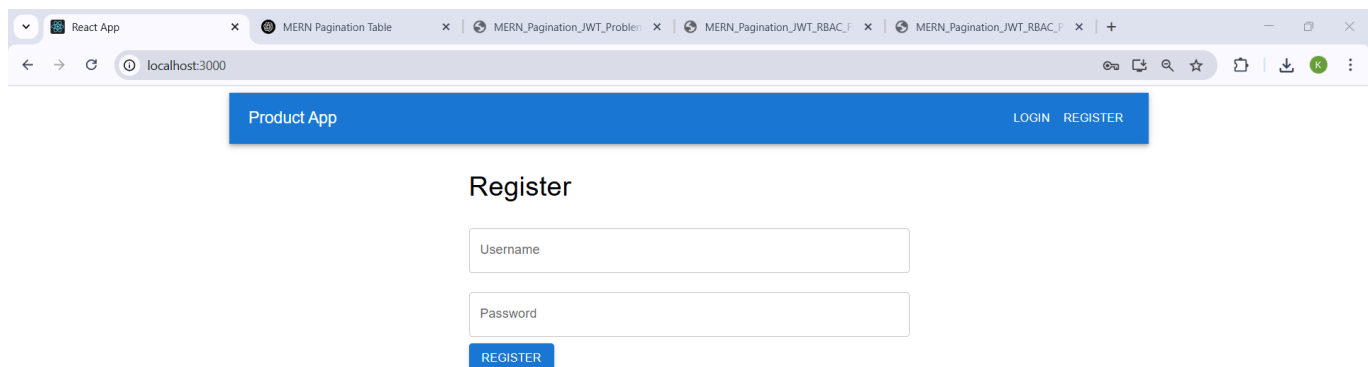
- Failure: 'Login failed. Please try again.'

LocalStorage Structure (auth)

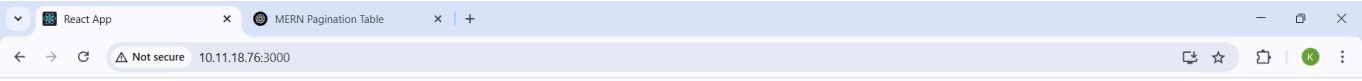Structure of the `auth` item in localStorage:

```
{
  "token": "<JWT_TOKEN>"
}
```
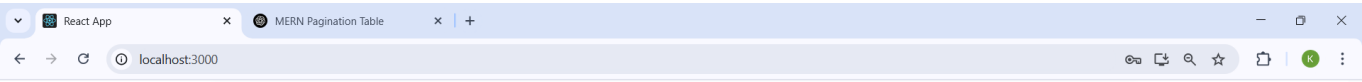
Application Screenshots

Register Page

Login Page

KMIT Group - MERN Pagination App with JWT

Product App   LOGIN   REGISTER

Login

Username

Password

LOGIN

Product Table after Login (with Edit & Delete)

Product App   LOGOUT

Product List

Search Products by Name

Name	Price	Category	In Stock	Actions
Gaming Laptop	$1194.62	Electronics	No	EDIT DELETE
Bluetooth Keyboard	$1063.61	Electronics	Yes	EDIT DELETE
Wireless Mouse	$1491.15	Electronics	No	EDIT DELETE
4K Smart TV	$518.1	Accessories	Yes	EDIT DELETE
Portable SSD	$391.7	Appliances	No	EDIT DELETE
USB-C Hub	$774.24	Wearables	Yes	EDIT DELETE
Smartphone Stand	$162.13	Appliances	No	EDIT DELETE
Noise Cancelling Headphones	$654.95	Appliances	Yes	EDIT DELETE