

Project Report: Next.js 14 Authentication Dashboard Application

Developer Info

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Project Overview

This project is a Next.js 14 application built with authentication functionality (login, registration, dashboard). It implements a secure modern web application using Prisma, PostgreSQL, and React components.

Technologies Used

Frontend: React (via Next.js 14)

Styling: Tailwind CSS

Backend: Next.js App Router

Authentication: Cookie-based auth with JWT-like behavior

Database: PostgreSQL

ORM: Prisma

Hosting Code: GitHub

Project Structure

- app/: Contains all pages like /login, /register, and /dashboard
- lib/: Includes Prisma client setup
- components/: Reusable React components like LogoutButton
- prisma/schema.prisma: Prisma schema defining the User model and database config
- styles/: Tailwind CSS setup
- public/: Public assets folder (optional)

Authentication Logic

User credentials are securely stored in PostgreSQL using bcryptjs. Upon login, an HTTP-only cookie 'user_email' is set for session tracking. The dashboard checks for this cookie to authorize access. Logout

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clears the session cookie.

Pages and Features

/register: Styled registration form to create new users

/login: Dark-themed login form

/dashboard: Protected route with user stats and logout

Database Scripts

The Prisma schema (prisma/schema.prisma) defines the database model.

Commands used:

- npx prisma init
- npx prisma migrate dev --name init

SQL backup file: database-backup.sql

Files Included in GitHub Repo

1. Full source code of the Next.js app
2. prisma/schema.prisma database script
3. database-backup.sql
4. This PDF report

GitHub Repository

<https://github.com/osgood-andoh-junior/nextjs-dashboard-app>

Conclusion

This project demonstrates secure cookie-based authentication, server-side route protection, and use of Next.js 14 App Router for scalable full-stack applications.