Project Report: Basic Login System

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1. Introduction

This is a Flask-based web application that provides a secure and visually enhanced login system with role-based access. It allows users to register, login, reset password, and access their dashboard. Admins can view all registered users through a dedicated dashboard interface.

2. Project Overview

Title: Neon Login System

Description: A multi-role web application using Flask, SQLite, and internal neon-style HTML/CSS to manage user authentication and access control.

Roles:

• Admin: - View all users - Access admin dashboard

• User: - Register/Login - Access user dashboard - Reset password

3. Technology Stack

• Backend: Flask (Python) • Frontend: HTML, Internal CSS (Neon Style), Jinja2 • Database: SQLite (Auto-generated)

4. Core Functionalities

• User & Admin login system • Role-based dashboard access • Flash messages for feedback • Neon-style form styling • Forgot password feature • Admin dashboard showing all users

5. Development Process & Challenges

Development Flow: • Designed HTML pages with internal neon CSS • Used Flask routes and Jinja2 for rendering • Created database models for users • Implemented session-based authentication

Challenges: • Styling every page with internal neon effects • Managing session states correctly • Role-based access control logic • Password reset integration with secure hashing

6. Database Design

• User Table: - id (PK), username, password, role

7. Conclusion

The Login System successfully enables secure user authentication, password management, and clean admin-user separation. The neon-styled UI enhances user engagement and improves visual feedback.

8. Future Scope

• Add email verification and OTP login • Integrate user analytics dashboard • Add profile update option • Expand to include multi-admin control system