# Project Proposal: Multi-Role Authentication Platform

## Executive Summary

This proposal outlines the design and development of a **multi-role authentication platform** that supports three distinct user groups: - **Students 🎓** - **Employers / Company HR 🏢** - **Administrators 🔑**

The system leverages **Supabase** for authentication and database management, with **Next.js** handling the frontend and middleware-based access control. Each role has its own **registration, login, and dashboard** tailored to their specific needs, ensuring a seamless, secure, and scalable experience.

## Objectives

1. Build a **secure authentication system** with role-based access.
2. Provide **separate dashboards** for Students, Employers, and Admins.
3. Enable **job and internship postings** with application tracking.
4. Allow Admins to **verify companies, manage users, and monitor activity**.
5. Design a **modern, adaptive navbar** with role-aware navigation.
6. Ensure scalability for **future roles and features** (e.g., recruiters, mentors).

## Key Features by Role

### Students 🎓

* User registration/login with role = student
* Profile creation (college, resume, skills)
* Browse and search job postings
* Apply to jobs and track application status

### Employers 🏢

* User registration/login with role = employer
* Company profile creation (company name, website, HR details)
* Post jobs and internships
* Review applicants
* Accept or reject candidates

### Admins 🔑

* User registration/login with role = admin
* Verify employer accounts before job postings go live
* Manage users (ban, approve, upgrade roles)
* Dashboard for activity insights and system monitoring

## Technical Architecture

### Backend: Supabase

* Authentication: Managed via auth.users
* Custom tables for **profiles**, **students**, **employers**, **admins**, **jobs**, and **applications**
* Role-based access enforced via **RLS (Row Level Security)**

### Frontend: Next.js

* Universal login/signup flow with role selection
* Middleware for role-based routing:
  + /student/\* → Students only
  + /employer/\* → Employers only
  + /admin/\* → Admins only
* Dynamic navbar adapting to role and authentication state

### Database Schema (Simplified)

* auth.users → Base authentication table
* profiles → Links users to roles
* students → Student-specific info
* employers → Employer/company info
* admins → Admin privileges
* jobs → Job listings
* applications → Student job applications

## User Interface & Experience

### Public Users (Logged Out)

* Homepage with platform overview
* Job search available without login
* Navbar with **Login** and **Sign Up** options
* Signup modal allowing users to choose role (Student or Employer)

### Logged-In Users (Role-Specific Dashboards)

* **Students:** Dashboard, Browse Jobs, My Applications
* **Employers:** Dashboard, Post Job, My Jobs, Candidates
* **Admins:** Dashboard, Users, Verifications, Metrics
* **Profile Dropdown:** Profile, Settings, Logout

### Navbar Design

* **Sticky Glassmorphism Style** with:
  + Transparent frosted background
  + Backdrop blur effect
  + Subtle shadow and border
  + Responsive adaptation to screen sizes

## Project Timeline

| Phase | Task | Duration |
| --- | --- | --- |
| 1 | Requirements Gathering & Finalization | 1 Week |
| 2 | Database Setup in Supabase | 1 Week |
| 3 | Authentication & Role-Based Middleware | 2 Weeks |
| 4 | Student Dashboard Development | 2 Weeks |
| 5 | Employer Dashboard Development | 2 Weeks |
| 6 | Admin Dashboard Development | 2 Weeks |
| 7 | Navbar, UI/UX Enhancements | 1 Week |
| 8 | Testing & Quality Assurance | 1 Week |
| 9 | Deployment & Client Review | 1 Week |

**Total Estimated Duration: 12 Weeks**

## Benefits

* **Security:** Role-based access ensures data privacy.
* **Scalability:** Easily extendable for new user types.
* **User-Centric:** Each role has tailored workflows.
* **Efficiency:** Centralized job posting and application tracking.
* **Transparency:** Admin oversight ensures trust and compliance.

## Conclusion

This project will deliver a **robust, scalable, and user-friendly multi-role platform** for students, employers, and administrators. With Supabase powering authentication and Next.js handling role-based access, the system will ensure **security, adaptability, and long-term value** for both the client and end-users.