A
Project Report
On
Expert Speaker Finder

Prepared by
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Under the guidance of

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Submitted to

Charotar University of Science & Technology
Degree of Bachelor of Technology
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CSE204: Project-I
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Submitted at

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Chandubhai S. Patel Institute of Technology (CSPIT)

At: Changa, Dist: Anand – 388421

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CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

CERTIFICATE

This is to certify that the report entitled "**Expert Speaker Finder**" is a bonafied work carried out by **Debdoot Manna (23CS043)** under the guidance and supervision of **Prof. Vaibhavi Patel** for the subject **Project-I (CSE204)** of 3rd Semester of Bachelor of Technology in **Computer Science & Engineering** at Chandubhai S. Patel Institute of Technology (CSPIT), Faculty of Technology & Engineering (FTE) – CHARUSAT, Gujarat.

To the best of my knowledge and belief, this work embodies the work of candidate himself, has duly been completed, and fulfills the requirement of the ordinance relating to the B.Tech. Degree of the University and is up to the standard in respect of content, presentation and language for being referred to the examiner.

Under the supervision of,

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At: Changa, Ta. Petlad, Dist. Anand, PIN: 388 421. Gujarat

DECLARATION BY THE CANDIDATES

We hereby declare that the project report entitled "**Expert Speaker Finder**" submitted by us to Chandubhai S. Patel Institute of Technology (CSPIT), Changa in partial fulfilment of the requirements for the award of the degree of **B.Tech Computer Science & Engineering**, from the Department of Computer Science & Engineering, CSPIT, FTE is a record of bonafide CSE204 Project-I carried out by us under the guidance of Prof. **Vaibhavi Patel**. We further declare that the work carried out and documented in this project report has not been submitted anywhere else either in part or in full and it is the original work, for the award of any other degree or diploma in this institute or any other institute or university.

Signature of the candidate Debdoot Manna (23CS043)

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

Assist. Prof. Vaibhavi Patel
Professor
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ABSTRACT

The Expert Speaker Finder is an innovative web-based application designed to revolutionize the process of identifying and selecting guest speakers for university seminars and events. This platform bridges the gap between the university community's collective knowledge and the administration's need for high-quality, diverse speakers. By leveraging modern web technologies such as Next.js, React, and Supabase, the application provides a user-friendly interface for students and faculty to submit speaker suggestions, while offering administrators a powerful tool for managing and vetting these recommendations.

Key features of the Expert Speaker Finder include a streamlined speaker submission form, a secure admin dashboard for reviewing suggestions, and a detailed speaker profile view for informed decision-making. The application's responsive design ensures accessibility across various devices, while its dark-themed interface offers a modern and visually appealing user experience. Security measures, including secure authentication and data encryption, safeguard sensitive information throughout the process.

This report outlines the project objectives, technical architecture, core functionalities, and potential future enhancements of the Expert Speaker Finder. By centralizing and optimizing the speaker selection process, this application aims to enhance the quality and diversity of guest speakers at university events, ultimately enriching the academic experience for students and faculty alike.

1. EXECUTIVE SUMMARY

The Expert Speaker Finder is a web-based application designed to streamline the process of finding and managing expert speakers for university seminars and events. This platform allows students and faculty to submit speaker suggestions, which are then reviewed and approved by university administrators. The application aims to enhance the quality and diversity of guest speakers at university events by leveraging the collective knowledge and connections of the university community.

Key features of the Expert Speaker Finder include:

- User-friendly interface for submitting speaker suggestions

- Secure admin login and dashboard for managing submissions

- Detailed view of speaker profiles for informed decision-making

- Approval/rejection system for efficient speaker selection
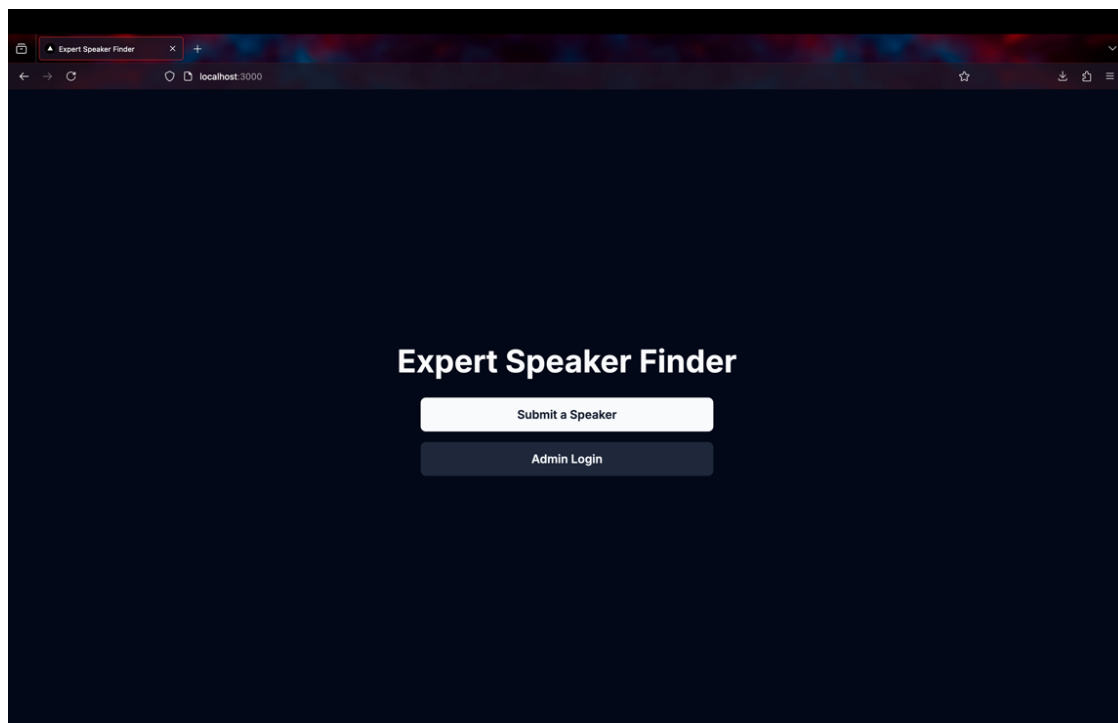
2. PROJECT OBJECTIVES

The primary objectives of the Expert Speaker Finder project are:

1. To create a centralized platform for collecting speaker suggestions from the university community
2. To streamline the process of reviewing and selecting speakers for university events
3. To increase the diversity and quality of guest speakers at university seminars
4. To provide an easy-to-use interface for both users submitting suggestions and administrators managing them
5. To implement a secure system for managing sensitive speaker information

3. TECHNICAL ARCHITECTURE

The Expert Speaker Finder application is built using modern web technologies to ensure performance, scalability, and maintainability.
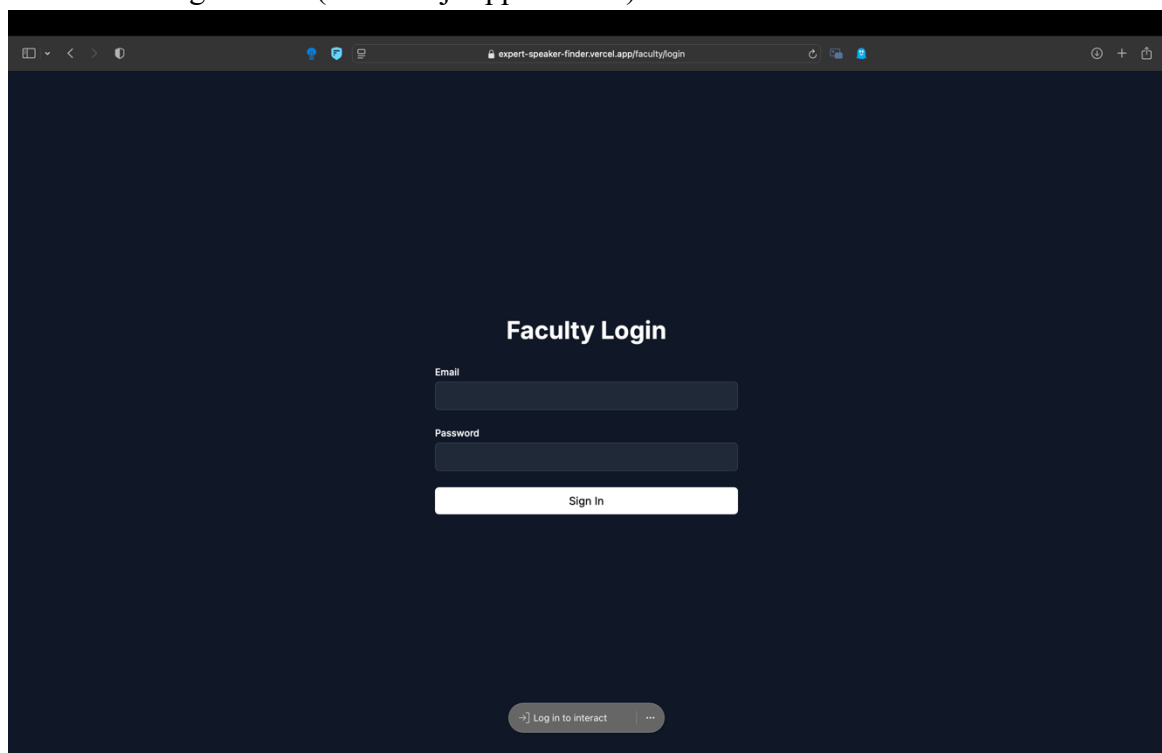
3.1 Frontend
- Framework: Next.js (version 14+) with React
- Styling: Tailwind CSS for responsive design
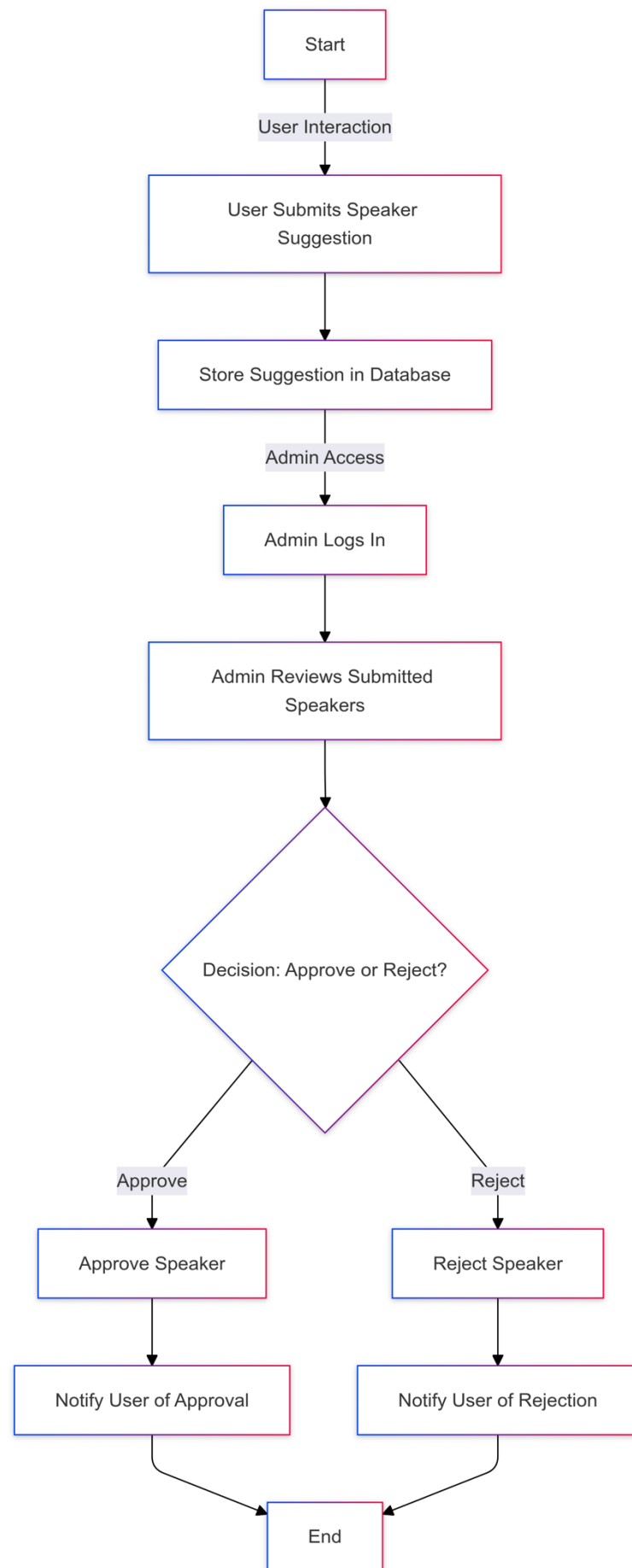- State Management: React Hooks

3.2 Backend
- Database: Supabase (PostgreSQL)
- Authentication: Custom implementation using Supabase

3.3 Deployment

- Hosting: Vercel (for Next.js applications)

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```
┌─────────────┐
│    Start    │
└─────────────┘
      │
 User Interaction
      │
      ▼
┌─────────────────────┐
│ User Submits Speaker │
│     Suggestion       │
└─────────────────────┘
      │
      ▼
┌─────────────────────────┐
│ Store Suggestion in Database │
└─────────────────────────┘
      │
  Admin Access
      │
      ▼
┌─────────────┐
│ Admin Logs In │
└─────────────┘
      │
      ▼
┌─────────────────────┐
│ Admin Reviews Submitted │
│      Speakers        │
└─────────────────────┘
      │
      ▼
   ◇ Decision: Approve or Reject? ◇
    /                          \
 Approve                      Reject
    ▼                            ▼
┌───────────────┐      ┌───────────────┐
│ Approve Speaker │      │ Reject Speaker │
└───────────────┘      └───────────────┘
    │                            │
    ▼                            ▼
┌─────────────────────┐  ┌─────────────────────┐
│ Notify User of Approval │  │ Notify User of Rejection │
└─────────────────────┘  └─────────────────────┘
          \                   /
           ▼                 ▼
          ┌─────────────┐
          │     End     │
          └─────────────┘
```

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4. KEY FEATURES AND FUNTIONALITY

4.1 Speaker Submission Form

Users can submit speaker suggestions through a user-friendly form, providing details such as the speaker's name, expertise, background, and the submitter's information.

4.2 Admin Dashboard

Administrators can log in to a secure dashboard to view and manage speaker submissions. The dashboard provides an overview of all submitted speakers, their status, and options to view detailed information.
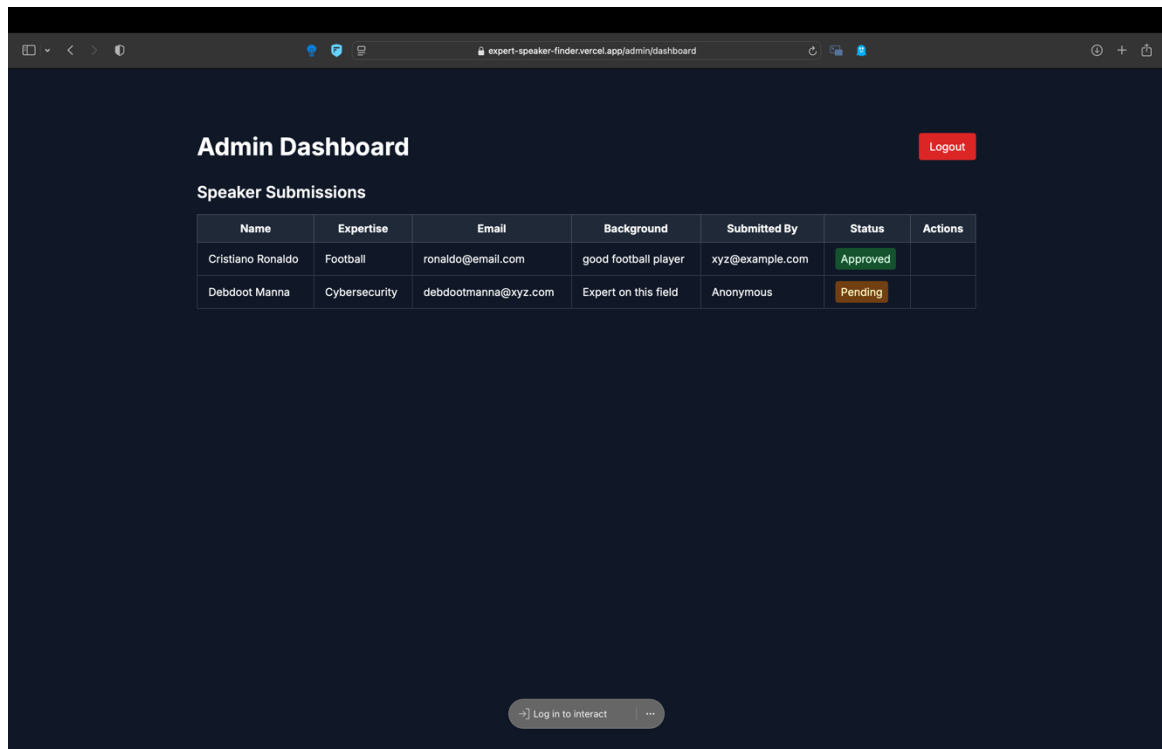
4.3 Speaker Detail View

Administrators can access a detailed view of each speaker's profile, including all submitted information. This view also includes options to approve or reject the speaker suggestion.
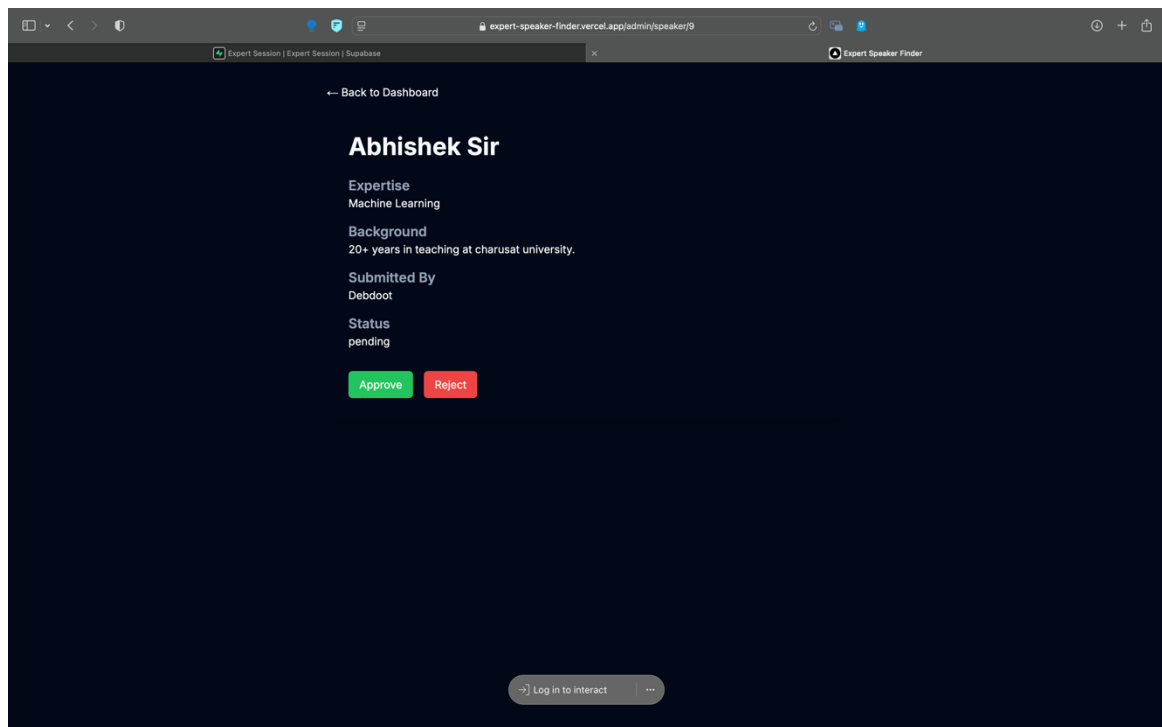
4.4 Approval/Rejection System

Administrators can approve or reject speaker suggestions directly from the speaker detail view. This action updates the speaker's status in the database.

5. USER INTERFACE DESIGN

The Expert Speaker Finder features a clean, modern, and intuitive user interface designed to enhance user experience and accessibility.

5.1 Color Scheme

The application uses a dark theme with carefully selected colors to ensure readability and visual appeal:

- Background: Dark gray (`#020817`)
- Text: White (`#ffffff`)
- Primary Accent: Light blue (`#38bdf8`)
- Secondary Accent: Green (`#22c55e`) for approval actions
- Tertiary Accent: Red (`#ef4444`) for rejection actions

5.2 Typography

The application uses the Inter font family, a modern sans-serif typeface that ensures excellent readability across different screen sizes and resolutions.

5.3 Responsive Design

The user interface is fully responsive, adapting seamlessly to various screen sizes from mobile devices to large desktop monitors.
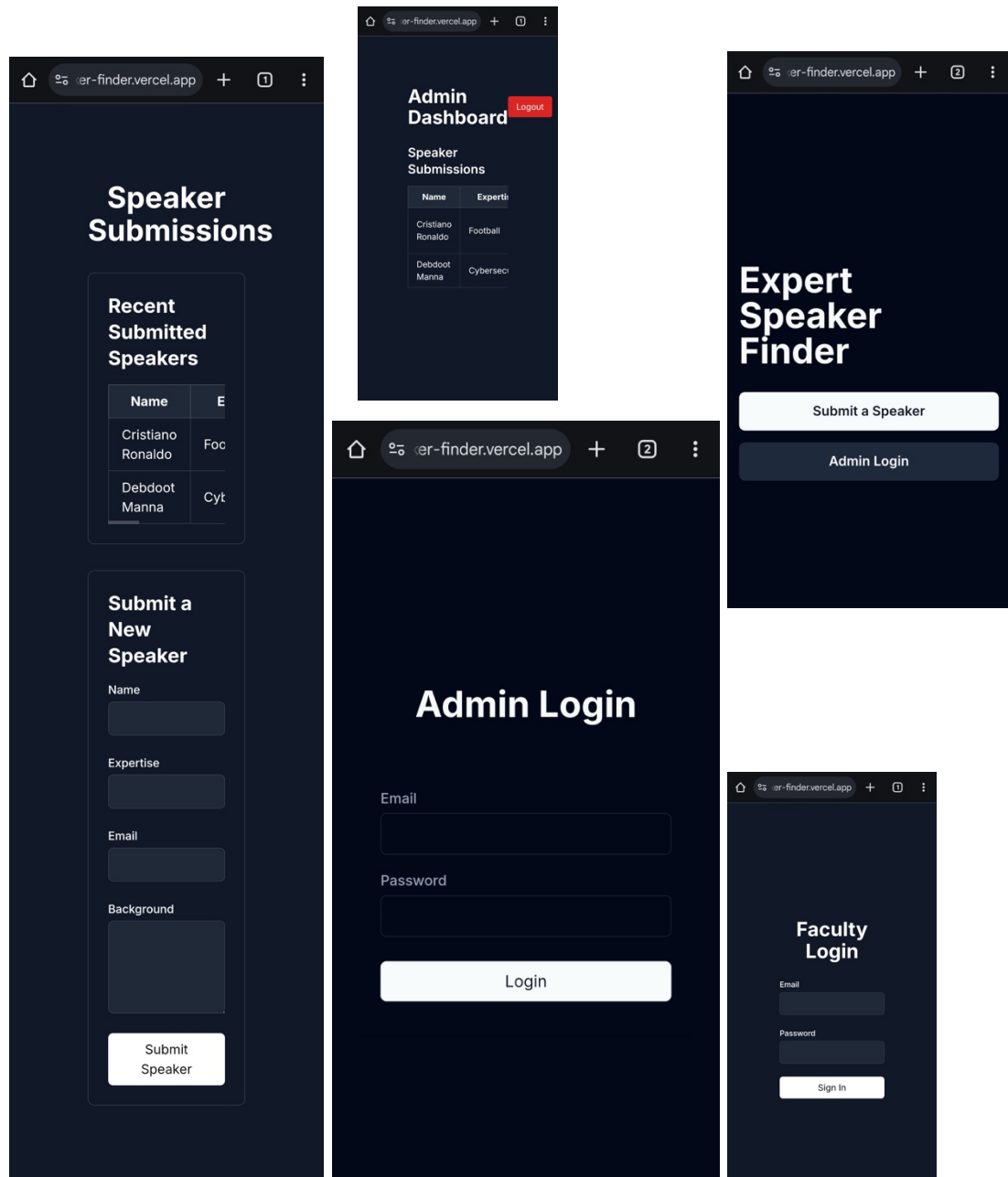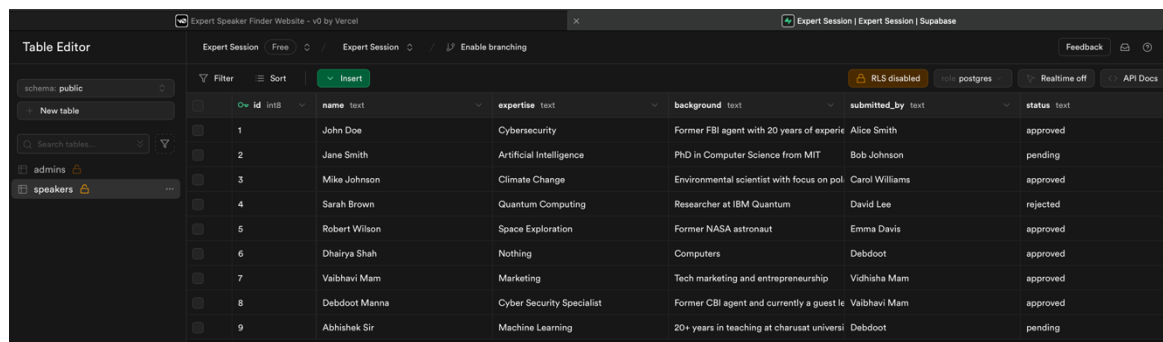
6. DATABASE SCHEMA

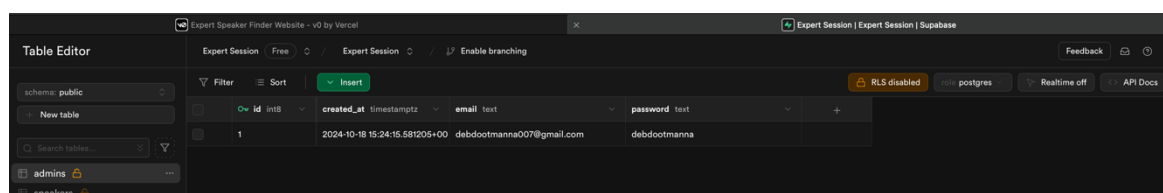**The Supabase database consists of two main tables:**

6.1 Speakers Table

- id (int8, primary key)

- name (text)

- expertise (text)

- background (text)

- submitted_by (text)

- status (text, default: 'pending')

- created_at (timestamptz, default: now())

6.2 Admins Table

- id (int8, primary key)

- email (text, unique)

- password (text)

- created_at (timestamptz, default: now())

7. SECURITY MEASURES

The Expert Speaker Finder implements several security measures to protect user data and prevent unauthorized access:

1. Secure authentication for admin login
2. Password hashing for admin accounts (Note: Implement proper password hashing in production)
3. Use of environment variables for sensitive information (e.g., Supabase URL and API keys)
4. Input validation and sanitization to prevent SQL injection and XSS attacks
5. HTTPS encryption for all data transmission

8. FUTURE ENHANCEMENTS

Potential future enhancements for the Expert Speaker Finder include:

1. Implement email notifications for admins when new speakers are submitted

2. Add a public page to showcase approved speakers

3. Integrate with university calendar systems for easy event scheduling

4. Implement a rating system for past speakers to inform future selections

5. Add support for file uploads (e.g., speaker photos, CVs)

9. CONCLUSION

The Expert Speaker Finder provides an efficient and user-friendly solution for universities to manage and select guest speakers for their events. By leveraging modern web technologies and a thoughtful user interface design, the application streamlines the process of speaker suggestion and approval, ultimately enhancing the quality and diversity of university seminars and events.

10. RESOURCES

https://github.com/DebdootManna/expert-speaker-finder (GitHub Repo)

https://expert-speaker-finder.vercel.app (Website)

https://vercel.com/docs/frameworks/nextjs (Documents)