codethedream.org

Opportunity | Innovation | Impact

Team Members

Daria Sidorko - Backend developer
Desiree McClain - Frontend developer
Amanuel Feyisa - Frontend developer
Kseniia Zakharova - Fullstack developer

Team Mentors

Gina Castromonte - Node CIL - Lead mentor
Natalia Sokolova - Node mentor
Alena Danilchenko - React mentor

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Project Overview

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Our Inspiration

🎓 Educational mentorship experiences

🌱 Starting coding journeys with guidance needs

💡 Desire to streamline mentor-student connections

Our Vision

🤝 Unified mentorship platform

🚀 Beyond traditional learning management systems

✨ Modern, intuitive educational experience

📈 Data-driven progress tracking and analytics

The Challenge

👥 Students struggling to track the sessions

📊 Manual attendance tracking and progress monitoring

🔗 Fragmented communication between mentors and learners

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Main Goal

⭐ A comprehensive, secure mentorship management platform for structured learning experiences and educational growth

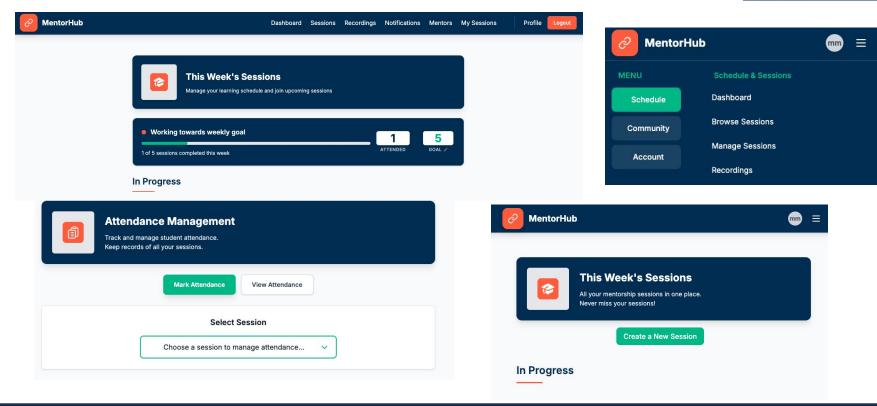## Core Features

🔐 User Authentication & Security (JWT tokens, bcrypt hashing, role-based access)

📅 Smart Session Management (create, schedule, track status transitions, capacity control)

👤 Role-Based User Profiles (student/mentor dashboards, progress tracking, weekly goals)

📊 Real-Time Analytics Dashboard (attendance statistics, goal tracking, session insights)

🎯 Attendance Tracking System (digital check-in, automated reporting, mentor controls)

🔍 Session Discovery & Registration (browse available sessions, one-click booking)

📱 Responsive Design (mobile-friendly interface, seamless cross-device experience)

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Comprehensive design system

Tech Stack Used

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BackEnd:

node JS

MongoDB

Express JS

JWT

BCrypt HASH

dot env

Mongoose { }

POSTMAN

FrontEnd:

React

Vite

React Router

Figma

tailwindcss

Jira   Notion   slack   Render

Challenges

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🚀 **Learning Full-Stack Development**: Mastered React, Node.js, Express, and MongoDB integration for seamless mentorship platform.

☁️ **Backend Architecture Design**: Built secure RESTful API with JWT authentication, role-based access control, and rate limiting.

🔗 **Real-Time Session Management**: Implemented dynamic session status transitions (scheduled → ongoing → completed) with live updates.

🔐 **Security Implementation**: Integrated bcrypt password hashing, signed HTTP cookies, and comprehensive input validation.

⚡ **State Management Complexity:** Resolved React context conflicts and optimized dashboard performance with custom hooks.

🎯 **Feature Scope Balance**: Prioritized core mentorship features while maintaining code quality and user experience.

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Next Steps

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✉️ **Email Notifications System**: Automatically notify students and mentors about session updates, cancellations, and reminders.

⭐ **Session Reviews & Ratings**: Enable students to rate sessions and leave feedback to help mentors improve their teaching quality.

🌍 **Time Zone Support**: Display session times in users' local time zones for better scheduling across different locations.

🔔 **Push Notifications**: Real-time browser notifications for session starts, attendance reminders, and important updates.

📱 **Mobile Application**: Develop React Native app for iOS and Android to provide mentorship access on-the-go.

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🤝 **MentorHub transforms traditional mentorship into structured learning journeys.**

We bridge students and mentors through a comprehensive platform that makes mentorship accessible and measurable. MentorHub enables progress tracking, goal-setting, and lasting professional relationships that drive real career growth.

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Heartfelt Thanks

❤️

To Code the Dream, for providing this transformative learning experience that has shaped our journey as developers.

And our deepest gratitude to our **exceptional mentors** - your unwavering guidance, invaluable insights, and generous investment of time have made all the difference in our growth throughout this practicum.

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