KFSCIS

Fall 2023 Senior Design Project

Learnr Growth & Skill Tracker

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Instructor/Faculty: Masoud Sadjadi

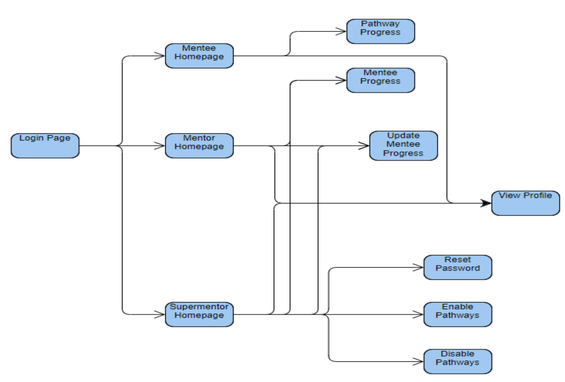
Problem

How to get new hires up to speed, consistently and effectively?

Solution

Tailored software development learning platform

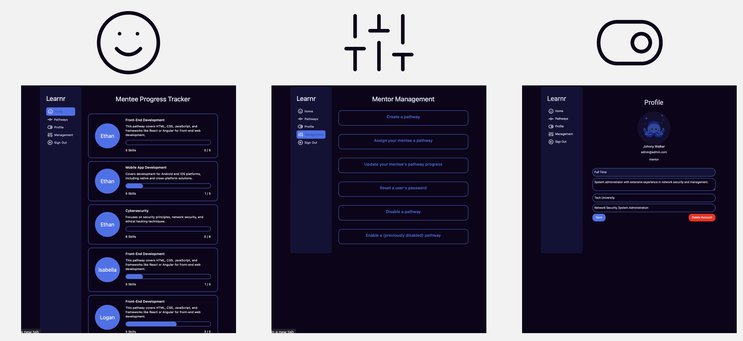
System Diagram



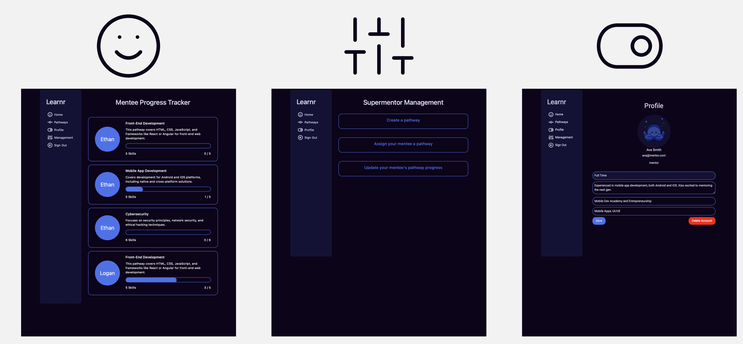
ER Diagram

Implementation

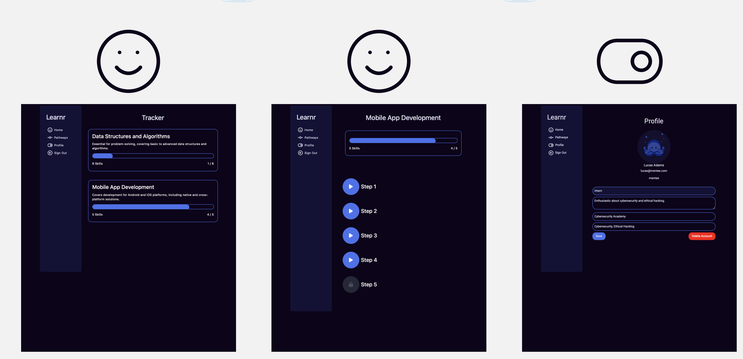
Supermentor



Mentor



Mentee



Project Progression

research | workspace setup | software architecture | database | learning roadmap | documentation | account management | ui/ux

Sprint 1

- Set up github desktop, github repository, and vscode
- Discuss project needs with PO
- Identify parts of the MVP and associated technologies
- Research technologies needed for MVP (javascript, html, css, epxress.js, node.js, npm)
- Categorize PO requests and decide on project MVP.
- Create user stories for the MVP
- Users with accounts created by supermentor can sign in with provided credentials
- Enable all users to sign in using a username and password

Sprint 2

- Create the backend that allows supermentor to assign a learning pathway - CSV
- Create the frontend that allows supermentor to assign a learning pathway - CSV
- Allow supermentor to register another user after completing one registration

Sprint 3

- Create front end that enable super mentor to reset passwords for any account
- Create back end that enable super mentor to reset passwords for any account
- Reformat code base to follow an MVC architecture

Sprint 4

- Reformat database from CSV to Relational Database to efficiently manage and access data
- Create database using ER diagram
- Create data for database
- Populate database with fictional users
- Set up database connection files
- Create database design (ER diagram)
- Document the database schema
- Develop an Entity-Relationship Diagram for the database

Sprint 5

- Update front end to enable all users to sign in only using email and password
- Update backend to enable all users to sign in only using email and password

Sprint 6

- Update database to allow pathways to be soft deleted
- Backend - supermentors/mentors create learning roadmaps
- Backend - supermentors disable learning pathways
- Backend - supermentors enable a previously disabled learning pathways
- Frontend - supermentors/ mentors to update mentee progress
- Backend -supermentors/mentors assign learning roadmaps to a mentee
- Backend - supermentors/mentors update mentees' progress in pathways
- Frontend - supermentors/mentors create learning roadmaps
- Frontend - supermentors disable learning pathways
- Frontend - supermentors enable disabled learning pathways
- Frontend - supermentors/mentors assign existing learning roadmaps to a mentee

From left to right: [1] System diagram of how each state in the system relates to the other(s). [2] Database Entity Relationship (ER) diagram [3] Project management board showing the progression of various tasks across six sprints for different components of a website development project. [4] Set of images illustrating the current implementation of the website across the three different user types (supermentor, mentor, and mentee) while interacting with different parts of the website. [5] All tools used during the creation of this project. From left to right: HTML, CSS, JavaScript, npm, Bootstrap, Express.js, node.js, git, github, mySQL, VSCode, and Figma.

ACKNOWLEDGMENT

The material presented in this poster is based upon the work supported by Assurant. We thank Assurant for the assistance and mentorship we received throughout the senior design project.