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CS5610: WEB DEVELOPMENT PROJECT 3

Design Document for Project 3 –

Full stack application with Node + Express + Mongo + React (hooks)

*** Project Name**

- CS Degree Planner

*** Project description**

- The goal is to create a degree planner for students in the Khoury Align MSCS program. The app will allow students to select specializations they may be interested in, and see a recommendation of courses to take for the entire length of the program and in what semesters to take them. They also have the option to modify the recommended degree plan to suit their preferences (perhaps after speaking with an academic advisor).

*** User Personas**

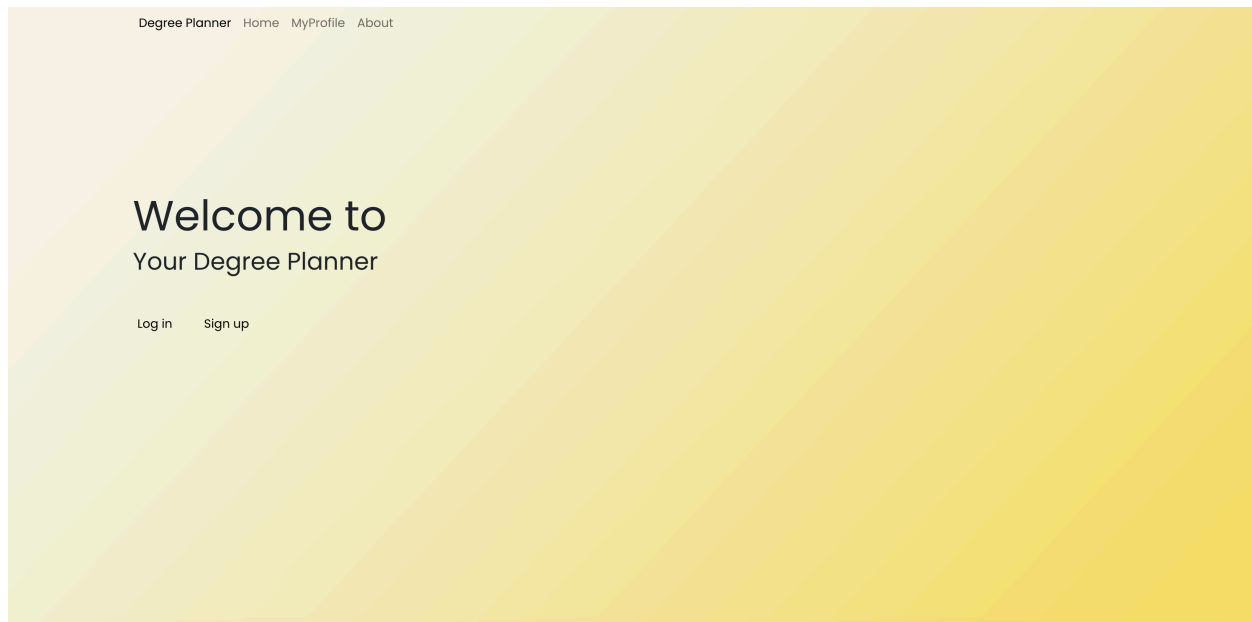
- Ben was recently accepted to the Align MSCS program at Northeastern University. He's transitioning from a career in Law and has no idea what courses to take for future career in tech. He needs an application that offer suggestions on what courses to take each semester depending on his desired specialization.
- Grace just completed her first year of the Align program. She realized that she is interested in a couple of CS specializations but is undecided on what path to pursue.
- Neil is an international student who just started his first semester of MSCS-Align program at Northeastern University. As an international student, he need to make courses plans for his internship or Co-ops arrangement.

*** User stories (use cases but with a story)**

- Ben was recently accepted to the Align MSCS program at Northeastern University. He's transitioning from a career in Law and has no idea what courses to take. He can use this application to make plans for what courses he will take in each semester, because this app can offer suggestions for various specializations.
- Grace just completed her first year of the Align program. She realized that she is interested in a couple of CS specializations but is undecided on what path to pursue and what courses will best prepare her for the future. She can use this application where she can manage her degree plan(s) as she continues to explore her interests.
- Neil is an international student who just started his first semester of MSCS-Align program at Northeastern University. As an international student, he is able to use a 12months CPT to be employed for internships or Co-ops during the entire length of the program. So, he is actively looking for next year's internships and Co-ops. But there are strict Khoury academic and coop policies that he has to follow before CPT approval and starting Co-ops. He can use this application as a planner where he can make eligible plans for graduating on time and taking advantages of the CPT length

* Design mockups.

HomePage



Sign UP

This is a mockup of the 'Sign UP' page, which shares the same warm, abstract geometric background as the homepage. The navigation bar at the top is identical. The page is titled 'sign up' in a large, dark, sans-serif font. Below the title, there is a form with the following fields: 'Email address' (text input), 'First Name' (text input), 'Last Name' (text input), 'Program' (a dropdown menu with 'Please choose' as the selected option), and 'Password' (text input). At the bottom of the form is a yellow button labeled 'Signup'.

Log in

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login

Don't have an account yet? [Sign up](#)

View Plans

Degree Plan

Plan 1	Plan 2
CS5600 - Computer Systems	CS5001 - Intensive Foundations of Computer Science
CS6410 - Compilers	CS5002 - Discrete Structures
CS6410 - Compilers	CS5004 - Object-Oriented Design
CS6710 - Wireless Network	CS5008 - Data Structures, Algorithms, and Their Applications within Computer Systems
CS6510 - Advanced Software Development	CS5800 - Algorithms
CY6750 - Cryptography and Communications Security	CS5400 - Principles of Programming Language
CS5700 - Fundamentals of Computer Networking	CS5500 - Foundations of Software Engineering
CS5600 - Computer Systems	CS5520 - Mobile Application Development
CS6410 - Compilers	CS5600 - Computer Systems
CS5520 - Mobile Application Development	CS5610 - Web Development
<input type="button" value="Delete Plan"/>	<input type="button" value="Delete Plan"/>

Recommendation

Recommendations:

Software Engineering	Data Science	Cybersecurity	Cloud Computing	Human-Computer Interaction	Artificial Intelligence
CS5001 - Intensive Foundations of Computer Science : (semester one)	CS5001 - Intensive Foundations of Computer Science : (semester one)	CS5001 - Intensive Foundations of Computer Science : (semester one)	CS5001 - Intensive Foundations of Computer Science : (semester one)	CS5010 - Programming Design Paradigm : (semester one)	CS5100 - Foundations of Artificial Intelligence : (semester one)
CS5002 - Discrete Structures : (semester one)	CS5002 - Discrete Structures : (semester one)	CS5002 - Discrete Structures : (semester one)	CS5002 - Discrete Structures : (semester one)	CS5800 - Algorithms : (semester one)	CS5010 - Programming Design Paradigm : (semester one)
CS5004 - Object-Oriented Design : (semester two)	DS5010 - Introduction to Programming for Data Science : (semester two)	CY5001 - Cyberspace Technology and Applications : (semester two)	CS5004 - Object-Oriented Design : (semester two)	CS6140 - Machine Learning : (semester two)	CS5800 - Algorithms : (semester two)
CS5008 - Data Structures, Algorithms, and Their Applications within Computer Systems : (semester two)	DS5020 - Introduction to Linear Algebra and Probability for Data Science : (semester two)	CS5008 - Data Structures, Algorithms, and Their Applications within Computer Systems : (semester two)	CS5008 - Data Structures, Algorithms, and Their Applications within Computer Systems : (semester two)	CS5170 - Artificial Intelligence for Human-Computer Interaction : (semester two)	CS6140 - Machine Learning : (semester two)
CS5800 - Algorithms : (semester three)	CS5800 - Algorithms : (semester three)	CY5010 - Foundations of Information Assurance : (semester three)	CS5800 - Algorithms : (semester three)	CS5340 - Computer/Human Interaction : (semester three)	CS5170 - Artificial Intelligence for Human-Computer Interaction : (semester three)
CS5500 - Foundations of Software Engineering : (semester three)	DS5110 - Introduction to Data Management and Processing : (semester three)	CY5130 - Computer System Security : (semester three)	CS5500 - Foundations of Software Engineering : (semester three)	CS5335 - Robotic Science and Systems : (semester three)	CS5330 - Pattern Recognition and Computer Vision : (semester three)
CS5610 - Web Development : (semester four)	DS5220 - Supervised Machine Learning and Learning Theory : (semester four)	CY5770 - Software Vulnerabilities and Security : (semester four)	CS5610 - Web Development : (semester four)	CS6120 - Natural Language Processing : (semester four)	CS5340 - Computer/Human Interaction : (semester four)
CY5770 - Software Vulnerabilities and Security : (semester four)	DS5230 - Unsupervised Machine Learning and Data Mining : (semester four)	CY6740 - Network Security : (semester four)	CS6620 - Fundamentals of Cloud Computing : (semester four)	CS5180 - Reinforcement Learning and Sequential Decision Making : (semester four)	CS5180 - Reinforcement Learning and Sequential Decision Making : (semester four)
CS6510 - Advanced Software Development : (semester five)		CY5210 - Information System	CS6510 - Advanced Software Development : (semester five)	PSYC5010 - Human Cognitive Processes :	CS7150 - Deep Learning : (semester five)

Create Plan

Create Plan

Semester I:

CS5001 - Intensive Foundations of Computer Science

CS5002 - Discrete Structures

Semester II:

CS5004 - Object-Oriented Design

CS5008 - Data Structures, Algorithms, and Their Applications within Computer Systems

Semester III:

CS5800 - Algorithms

CS5400 - Principles of Programming Language

Semester IV:

CS5500 - Foundations of Software Engineering

CS5520 - Mobile Application Development

Semester V:

CS5600 - Computer Systems

CS5610 - Web Development


Create Plan

Degree Planner

Home

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Ke

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kechen@wustl.edu

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Ke

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Chen

Program


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