

Software Development

Project 3

Module 23



Project Requirements

Project 3

Coding Requirements:



Must use **React** for the front end



Must use **GraphQL** with a **Node.js** and **Express.js** server



Must use **MongoDB** and the **Mongoose ODM** for the database



Must use queries and mutations for retrieving, adding, updating, & deleting data



Must be interactive (i.e., accept and respond to user input)



Must have a polished UI



Must use at least one **GitHub Action** in the project repository



Must include authentication using JWT



Must protect **API keys** and sensitive information with environment variables



Must be deployed using Render (with data)

CSS Styling (Optional)

Instead of using a CSS library like Bootstrap, consider one of the following suggestions:



Look into the concept of CSS-in-JS, which abstracts CSS to the component level. (Popular libraries include styled-components and Emotion).



Try using a component library, such as Semantic UI, Chakra UI, or Ant Design.



Create all the CSS for your application just using CSS.



Regardless of which of these options you choose—it must look professional and be mobile-friendly.



Alternative Project Using Python

You also have the option to replace use **Python as your back-end language**, which would replace the requirement to use GraphQL with a Node.js and Express.js server.

If you choose to go this route, please note that **this will likely require additional work from your group**, as the curriculum doesn't cover full-stack Python applications. This option requires approval from the instructional team.



Presentations

Presentation Requirements

Your formal, 10-minute presentation must include the following:

01

Your application's overall concept

02

The motivation for your application's development

03

Your design process

04

Technologies used (and a brief description of how they work)

05

A demonstration of the application's functionality

06

Directions for future development

07

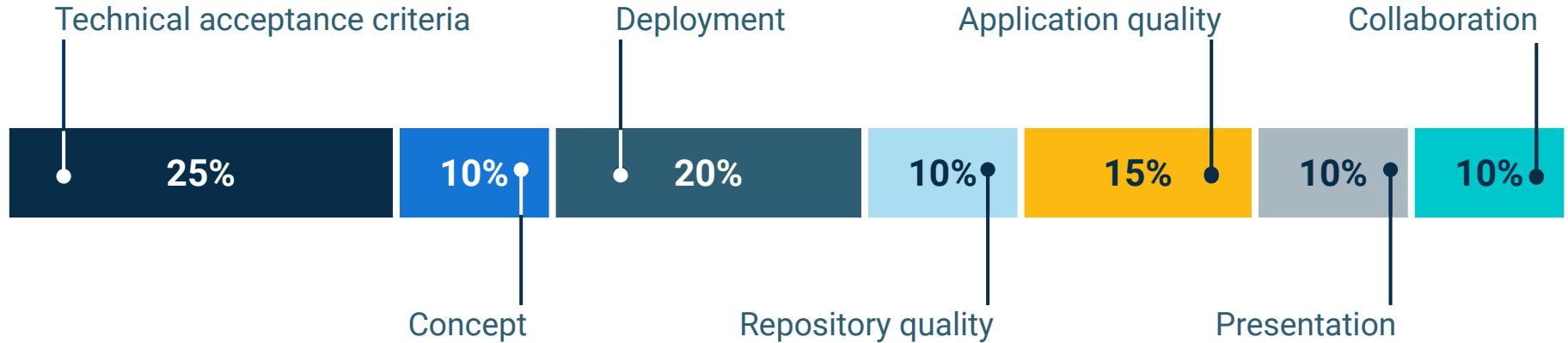
Sometimes, talking intelligently about tech > doing tech.



Metrics

Metrics

Project 3 will be assessed based on the following:





Group Members



Group Challenge:

Project Brainstorming

Work with your group to identify ideas, research APIs, and create project designs.
You will submit your initial project proposals by the end of class today.

Suggested Time: 60 minutes