Capstone: Project Management App

Overview

You are building an app that assists in project management. Your app will allow team members to view tasks and mark them as complete. Tasks should be grouped with a project.

Project attributes (feel free to add more):
- Team size
- Budget
- Workload
- Completion time

Tasks attributes (feel free to add more):
- Description
- Complete/not complete status
- Person assigned
- Due date
- Estimated duration

The list of tasks can be reordered by any of these values.

In addition to viewing tasks, managers also create new tasks, delete them, and edit them. Since we have roles (manager and non-manager), we will need a login form and authentication.

Building the Application
1. Choose Mongo DB for backend data.
2. Use node.js to build a web service to read and write data.
3. Build the web application in React.

Data Analysis
1. Create a script that generates and populates the database with a minimum of 1000 records of dummy data.
2. Train a model using **sklearn.linear_model.LinearRegression** algorithm to predict project completion time based on project attributes.
3. Create a React component that can take project attributes as input and pass that to the model using a RESTful service. Display the returned predicted completion time.
   a. **TIP:** Investigate using the python-shell npm package in Express to call Python from JavaScript. Another option is to use Flask to create the RESTful service.