Web Science
Quiz 1: February 21, 2025

Enter your answers directly into this document (with the exception of #2 and #3). All answers should be In Your Own Words, using complete sentences with proper spelling and grammar.

Save this document as either a Word docx or a PDF. For all questions other than #2 and #3, you will not receive any credit for answers not placed in this document.

When finished with the quiz, put everything you wrote (this document, all code, etc.) in your personal GitHub repo in a folder named **quiz1**. Local development only for this quiz, but everything you want graded must be on GitHub in a directory name **quiz1** no exceptions.

1. **Short answers** (25 points): (Answer in complete sentences unless otherwise specified, explain your answers)

    a. (8) Fill out this table as to what should happen for each verb at each endpoint **according to the letter of the law.** (No need for complete sentences.)

Resource	POST	GET	PUT	DELETE
/news	Submit Data News API	Retrieve News API Data	Update New Article API	Delete News Article API
/news/123	Submit News Article Id:123	Retrieve News Article Id:123	Update News Article Id:123	Delete News Article Id:123

    b. (7) What is a package.json file? What is it used for? How is it created?

    The package.json file defines the dependencies and scripts of a project. It is used for recording important metadata, which is used when running your node app. To create your package.json file, you must cd into the repository of your node project through the terminal, then run npm init, and the terminal will ask you to provide information that will be inputted into your package.json file.

    c. (10) Describe **in exacting detail** the sequence(s) of transaction(s) for a frontend to request data from some external entity via Node/Express.

    This transaction is almost the same as the simple client-server model. A request is made from the client, the server processes it, and a response is sent. The only difference here is Node and Express can have middleware functions that aid this process.

2. **Coding question**: (60 points) Here is a free API that does not require any API keys: https://frankfurter.dev/

   Create a new GET endpoint in Node/Express that converts currency.

   Creativity matters; try your best to integrate this new information into your frontend. Try as hard as you can to make it feel like it is a meaningful, conscious, intentioned feature of your app. How you do that is up to you. Go beyond the minimum (but remember that creativity doesn't have to be visual). If you need to, write a short README.md file that tells me what I should consider for creativity. (creativity: 20 points of the 60 available for this question)

   You may use any and all open source libraries you want for this coding question, so long as you cite them in a README.md file.

   20 points for frontend (could be React, doesn't need to be React)
   20 points for backend (extending your API to include this new info, serving it to your frontend)
   20 points for creativity

3. (15) Ensure the package.json file for Q2 has no errors when I run npm install.

4. **Extra credit (+5)**: Before moving into its current building, which building on campus was the home of the Rensselaer Student Union?

Lally Hall