## Criterion B: Analysis

### Proposed solution:

Mr. Giovino and I discussed a website that would allow students to log in / sign up with a peer tutoring account and find other tutors or students who need tutoring. They could, depending on whether they want to tutor or be tutored, notify the respective people through the web app. We also discussed that the tutor would need to be verified by the teacher for the subject they want to tutor in.

## Requirement specification

### IT system requirements

* Hardware : Needed by Developer
  + Visual Studio Code with extensions of the coding languages I will be using (html, js, css, php, etc.)
* Hardware : Needed by Client
  + Access to a database that I could access to store the data for the website
  + Access to a server I could host the website on
* Hardware : Needed by User
  + Any device with a connection to the internet would be sufficient for the user

### System interaction

* The website would be compatible with any device with a connection to the internet
* It would be able to work on web browsers such as Safari, Firefox, and Chrome

### Input/output requirements

Input requirements

* Access to a database
* Access to a server
* Access to the courses names and teacher emails/names that goes with said subject

Output requirements

* Landing / Entry Page with Portlege and Peer Leadership logo
* Consistent design structure
* Easy navigation
* Clickable profiles, clickable subjects
* Bio Pages explaining the tutors, including availability and preference of in person or zoom meeting
* Notifications for when you get a tutor request, tutor acceptance, verification form teacher, etc.

### Processing

* Landing Page to start on
* Use Navigation to move through the website
* Edit Profile to change users bio
* Hierarchy for subjects: school (lower, middle, upper) -> topic -> subject

### Security

* Users are protected with their own data with their own usernames and passwords
* Usernames cannot be reused
* The passwords on the website would use hash encryption for the users passwords
* The website also uses html protection against hacking though the sign in page
  + For example, if someone enters javascript code in the form instead of their name, the website would reload the page to prevent potential hacking

## Specific performance criteria

1. Sign Up Page allows user to input full name, email, and password
   1. Check that email / FULL name does not exist in the database already
   2. Check that email is a portledge email (contains @portledge.org)
   3. User is able to select cohort and availability
2. Log In
   1. Check that email and password match / exist in the database
3. Ability to Log out
4. Landing Page allows for easy navigation
5. Profile Page has input options for bio, availability, and preference meeting type (zoom or in person)
   1. User is able to edit profile
6. Hierarchy allows user to navigate to a specific subject
7. User can apply to become a tutor or submit a request to be tutored
8. Notifications inform users of requests, accepts, ect.
9. Emails can be sent out to further notify users
10. Teacher can verify a student to be a teacher through the website or email
11. Schedule Meetings
12. See Meetings on the meeting page

## Justification of chosen solution

 A website that connects users will be the most efficient way to allow students to quickly and easily get involved with peer tutoring.

Mr. Giovinos’s goal is to implement Peer Tutoring into Portledge and decided that a website would be a good option. A website can handle traffic of students who want to join, and relieve the job of running the program from a person to do themself. Having the program run online allows for faster processing and effectively reaches the students with notifications and emails.

Mr. Giovino stresses the importance of connectivity and perspective. Having different perspectives can be beneficial for students. It will allow students to learn from their peers, which will provide a different approach to the subject that may help the student. The website can also provide an option for students who want to be tutored but are shy to put themselves out there and ask a teacher for help.

I decided to structure the website with a database to keep track of the users names, emails, and passwords. I will use this data to get in touch with the users whether it be a notification email or a notified update email. This will also allow each use to have their own specific profile page and allow their account to be private and secure.

Word Count: 218