Mission X Appendix B - Evaluation Form - Intake 8 - Brilliant Stream

You are requested to complete this evaluation form by no later than this coming MONDAY, 11:59pm. Failing to complete and submit this form will impact your programme completion.

* Required

Peer Review Form - Member 5

Project & Self Evaluation Form

1. What technologies (or code libraries) did you use to build the front-end, back-end, and database in this Mission? What is one alternative technology you could have used instead for each of the front-end, backend and database components? What are the benefits, strengths, and limitations for each of the technologies you used, compared to any alternatives? *

Database: We settled on the use of MySQL and MySQL Workbench as the main technology behind our database and RDBMS. MySQL uses Structured Query Language (SQL) to manipulate data in our database. MySQL workbench also has an interactive user interface that allows us to view query data in a table-like structure for readability.

MySQL can efficiently manage your data. It is powerful, dependable, and stable. It uses a relational database that has been around for more than 40 years and is one of the most commonly used databases in web applications. It is extremely easy to use, inexpensive, and has a large developer community.

An alternative to using a SQL database is a NoSQL database. For example MongoDB. MongoDB is a document database that stores data in a JSON-like format. Data stored in this fashion can be manipulated easily but NoSQL databases are non-relational. Although NoSQL is being adopted quickly, the community of support remains relatively small compared with MySQL.

Comparison:
SQL is relatively easy to learn
restricts us to working within a predefined tabular schema
NoSQL requires less emphasis on planning, and greater freedom when adding new attributes
Fluency in one translates to proficiency in most RDBMS
Many NoSQL have a unique data manipulation language constraint.

Frontend:
React.js was our go-to front-end library. It is a free and open-source front-end JavaScript library for building user interfaces based on UI components. It is maintained by Meta and a community of individual developers and companies. (Jens. H 2017)

React has exceptional community support. The number of React developers across the globe is a core advantage. Another great benefit of React is its learning curve. React has an accessible learning curve that anyone with minimal JavaScript skills can master.

An alternative to React would be Angular. Which is a TypeScript-based JavaScript framework. Developed and maintained by Google. Like React, Angular has tons of benefits for the user. For example, Angular is great for cross-platform development.

Comparison:
Both of them are component-based
React focuses on the use of JavaScript ES6 while Angular relies on TypeScript
steep learning curve learning for typeScript.
React uses JSX a pre-processor for HTML-like syntax which will be compiled in JavaScript later.
The Angular templates are enhanced HTML with special Angular language (Things like ngIf or ngFor).
Angular forces you to learn Angular-specific syntax.

Backend Node.js Frameworks
We settle on the use of Express.js Framework to build MissionX. Express.js is the best Node.js framework according to SIMFORM. It has a minimalistic approach and does not require a steeper learning curve. A basic understanding of the Node.js environment will be enough.

Some benefits of Express.js includes:
Rapid server-side programming packages
High performance- using asynchronous programming
Better content negotiation-better communication between the client and server

Meteor.js is an alternative framework that could have been instead of Express.js. It is an open-source platform for seamlessly building and deploying Web, Mobile, and Desktop applications in JavaScript.

Meteor.js is a pure JavaScript and full-stack framework meaning it can be used in both the front end and the backend. Meteor.js also provided utilities that take the place of installing packages like Nodemon. Other benefits include
Allows us to use a single language. JavaScript for both server-side and client-side development.
Real-time updates by default.
The smart package option is quite beneficial
The ability to convert web apps into mobile apps
A comparison of both these frameworks would show that Express.js is superior in the backend but Meteor.js is superior as a full-stack framework. Setting up a new project in Express.js is super easy with a simple npm install. Express.js is not without its limits. It has no single recommended way of doing

2. If you could choose an upcoming technology (e.g. Machine Learning, Blockchain, Chatbot, Virtual Reality) to add to your solution in this Mission to enhance its functionality, what technology would you choose? How would applying this technology improve the solution? What are the benefits, strengths and limitations of this technology you chose? *

I believe that a Chatbot would be one of the best upcoming technology to enhance the overall functionality not just of the two pages I've worked on but the whole website.

"Level Up Work" is designed and directed to teachers and students. It holds and monitors all the teaching materials that are used. With that said, there are going to be questioned especially on the part of the student. Remember the website is a wealth of information, providing everything that the teacher and students need. Unless time is taken to go through every aspect of the website there is going to be a bit of frustration. Readily available and accessible information at the user's disposal can feel overwhelming. A simple chatbot responding to commands can quickly guide users on navigation and completion of tasks. Students being more technologically inclined will shift towards new technologies and prefer to adopt new technologies in learning than follow the traditional process. Students spend most of their time on social media and other mobile applications. Adding education chatbots to your learning environment can be beneficial for both teachers and students.

Research from USMSystems shows that chatbots improve productivity. One study suggests that companies using e-learning strategies and tools can increase productivity by as much as 50 percent.

One noteworthy strength of chatbots is that they mimic human behavior and interact conversationally. This helps users solve problems simple as "where do I submit my work?" instead of having to disturb the teacher in the middle of the night. Some other benefits of chatbots include improved student engagement and 24/7 availability.

A limitation that could arise from the use of chatbots is the fact that they will lack the versatility and capability of improvisation and deduction of the human brain. This means it going to be very difficult to

3. What software security practice have you applied or do you think you should apply in this project? How would that benefit the project? *

One of the most common security vulnerabilities is SQL injection. It allows an attacker to interfere with application queries to a database. To run a SQL injection attack, you can find a textbox on a website that allows you to type free text. From there we can start typing some SQL code into the text box which will get sent to the database as a query.

A parameterized query is one of the software security practices I think we should implement in Mission X. We will be storing sensitive information of teachers and students. Protection preventing or reducing the probability of unauthorized/inappropriate access to data, or the unlawful use of the information is our priority.

A parameterized query is a query in which placeholders are used for parameters and the parameter values are supplied at execution time. The most important reason to use parameterized queries is to avoid SQL injection attacks.

Another great security practice is version control. Keeping track of the source code we've written is paramount for successful development. It will protect the project from internal and external threats. Local git repositories as a distributed source code management have become a norm in development. We also adopted this method to keep track of our mission X. We've also used GitHub as our remote repository. Source control is important for maintaining a single source of truth for development teams. Using it helps facilitate collaboration. Some benefits of source control are: It allows us to work on the

4. What extra research and learning did you do to assist in completing the Mission? What research findings were applied to the code in this Mission, and how were they applied? (Please be specific, and include references to any research sources that were used.) *

Tons of research has been done in the completion of the Mission.

Material UI- https://mui.com/material-ui/react-button/

I incorporated buttons as I find them to be pretty used and easy to implement.

StackOverflow- https://stackoverflow.com/questions/47196800/reactjs-and-images-in-public-folder

During Mission 3, most of my information was coming from an array of objects. I was unable to map the image source path from the array without importing the image directly into the component that I was using. To solve this problem I jump onto stack over which taught me that this is possible when the files are in the public folder and not the src folder.

FreeCodeCamp- https://www.freecodecamp.org/news/search-and-filter-component-in-reactjs/
Medium.com- https://medium.com/@mackmcquen/creating-a-filter-form-in-react-e963fc19d5df

The project library page I was building included a filter form and filter buttons that sort the data that was pulled from the database. The Freecodecamp "How to Search and Filter Components in React" shows me how to use the state to keep track of the filter button being clicked and gave me some insight into the logic used to get all my filter button working. The article from Medium also solidifies that

5. What is the address of the Github link to your work? Paste the link below. How have you (or would you) use your own Github as a portfolio to help you with further learning? *

Here is the link to our group MissionX - https://github.com/Mission-Ready/2022-08-Brilliant-MissionX-Grc

Project & Self Evaluation Form

6. What specific responsibilities were allocated to you as your contribution to team performance during this Mission? (e.g. develop page A and page B, component XYZ). *

E.g. Full stack for 3 web pages of the application, or writing front end code for all pages.)

I was task with building two pages the Student Project Library and the Student Profile Page. I also build the database and inputted so dummy data.

7. Describe an instance during this Mission where you asked for input from one or more team member(s), or you listened to feedback from them, and then changed your mind as a result. *

When we started to write code for Mission X our knowledge and experience weren't as vast as it is now. I remember one weekend while working on the Student project page I asked the group for some feedback on my pages. I separated the project page into three components header, main, and footer. The main section then was almost 400 lines long. While I was showing my teammate, trying to explain what I have done to them they immediately stop me to address the length of the code. They were having trouble keeping up with my explanation because of the length. The feedback I was given that day made me change my mind. I was advised to break up the Project page into as many components as I possibly can. Because some of the components are non-functional, separating them allows me to work on the functional one without having the non-functional one distract me. This was one of the best

8. Describe an instance during this Mission where you provided feedback to one or more team member(s), or negotiated with them, and then they changed their mind or you reached a consensus with them as a result.
*

I remember vividly one of my teammates was having trouble with his pages. He was working on the home page and the login/signup form. And for some reason, he couldn't get the rendering of the signup button to reflect the correct input forms. We try many solutions that we found online. Most of which didn't work. I advise him to recreate the problem. To try to build the modal with the sign-in form step by step until he meets the problem again. That way by the process of elimination can find out if the problem is created by bad code or if it is missing something. I believe he tried out this solution along with getting help from an AT to get the correct form. He commended me for the feedback. By recreating the problem he was able to ask more direct informed questions to the AT.

9. Reflecting on how you worked on the Mission, how important was it for you to be able to work effectively in collaboration with your team-mates; how effectively did you think you were able to do so; how effectively were your team-mates able to do so? *

I remember watching an interview with Gregg Popovich. He is the president and head coach of the San Antonio Spurs of the National Basketball Association. In this interview, he mentions some point on what makes a winning team

"It's about discipline, it's about building blocks. It's about your relationship with your players
Uh, how do you get something out of somebody who's selfish
Or doesn't really compete the way you'd like, and so on and so forth
Uh, all those things I think have more to do with winning and losing the drawing certain kind of plays"
Gregg Popovich

Collaborating as a team is important in today's highly digital world. As you can tell from Popovich's statement strong relationships can do more for a team than skills.

It was extremely important to me to be able to collaborate well with everyone on my team. I strongly believe in Popovich's statement that great teamwork can lead to a winning team more than all the resources in the world. We were able to help each other solve problems. We had so many meetings where we just use the time to brainstorm how to solve each other problems. We found out that the more eyes are given to a problem the easier it gets. We've also built great relationships during our time together. This regular interaction forces us to build a personal relationships. We broke down some walls

10. Based on the work that you did during the Mission, what areas in your knowledge and of your self would you like to improve on? Please include at least one technical area and one non-technical area. *

Mission X was a welcomed challenge. As a team, we were eager to get started while at the same time overwhelmed by the thought of getting started. I have gained so much knowledge and skills throughout the completion of Mission X. But… with every ounce of knowledge there is a pound of doubt and fear that follows. One non-technical skill I believe that I need to work on is communication. It is no exaggeration to say that interpersonal skills are the foundation for success in life. People with strong interpersonal skills tend to be able to work well with other people, including teams seamlessly.

Communication is the simplest act of transferring information from one place to the next. It sounds simple enough but being a teacher pre-COVID, I spent most of my time communicating non-verbally. So getting into an environment where the only reaction we had was through a webcam made things difficult. This could also be my apprehension about online dating. Moving forward I vow to put some effort into improving my interpersonal skills. I would also love for this improved communication to branch out into my coding. Sometimes I find it extremely difficult to come up with meaningful names within my code.
I've done some research reading through Clean Code by Robert C. Martin. I've tried some of his techniques during Mission X to use some intentions revealing names but as the project got large. The naming convention got a bit distorted.

In terms of technical skills, I believe one of my biggest downfalls is my implementation of CSS. I believe I have a solid grasp of CSS. While doing Mission X I realized that I am not fully aware of the internal CSS relationship. I found out that a lot of solutions for writing CSS are about understanding CSS relationships instead of trying to isolate its effects on an individual element. For example, I learned that it's easier to set the height on the child instead of the parent to avoid overflow issues. Some other element relations that I need to improve on are the collapsing margin and flex sibling relations. Because I lack some of the foundations in these relationships I found myself in a battle of trial an error to fix

Peer Review Form - Member 1

11. Please input the name of the team member you are reviewing

Darren Cooper-Matila

12. Did he/she regularly attend meetings? (yes/no)

Yes

13. Did he/she deliver on his/her agreed work in time? (yes/no)

Yes

14. Did he/she demonstrate mutual respect for you and others? (yes/no)

Yes

15. Did he/she communicate his/her ideas clearly with you or the team? (yes/no)

Yes

16. Did he/she allow others to express themselves and try to understand? (yes/no)

Yes

17. Additional Comments

Overall, a great team player.

Peer Review Form - Member 2

18. Please input the name of the team member you are reviewing

Lenuasi Tueli

19. Did he/she regularly attend meetings? (yes/no)

Yes

20. Did he/she deliver on his/her agreed work in time? (yes/no)

Yes

21. Did he/she demonstrate mutual respect for you and others? (yes/no)

Yes

22. Did he/she communicate his/her ideas clearly with you or the team? (yes/no)

Yes

23. Did he/she allow others to express themselves and try to understand? (yes/no)

Yes

24. Additional Comments

Great team member.

25. Please input the name of the team member you are reviewing

Villami Mohulamu

26. Did he/she regularly attend meetings? (yes/no)

Yes

27. Did he/she deliver on his/her agreed work in time? (yes/no)

Yes

28. Did he/she demonstrate mutual respect for you and others? (yes/no)

Yes

29. Did he/she communicate his/her ideas clearly with you or the team? (yes/no)

Yes

30. Did he/she allow others to express themselves and try to understand? (yes/no)

Yes

31. Additional Comments

Enter your answer

Peer Review Form - Member 4

32. Please input the name of the team member you are reviewing

Enter your answer

33. Did he/she regularly attend meetings? (yes/no)

Enter your answer

34. Did he/she deliver on his/her agreed work in time? (yes/no)

Enter your answer

35. Did he/she demonstrate mutual respect for you and others? (yes/no)

Enter your answer

36. Did he/she communicate his/her ideas clearly with you or the team? (yes/no)

Enter your answer

37. Did he/she allow others to express themselves and try to understand? (yes/no)

Enter your answer

38. Additional Comments

Enter your answer

Peer Review Form - Member 5

39. Please input the name of the team member you are reviewing

Enter your answer

40. Did he/she regularly attend meetings? (yes/no)

Enter your answer

41. Did he/she deliver on his/her agreed work in time? (yes/no)

Enter your answer

42. Did he/she demonstrate mutual respect for you and others? (yes/no)

Enter your answer

43. Did he/she communicate his/her ideas clearly with you or the team? (yes/no)

Enter your answer

44. Did he/she allow others to express themselves and try to understand? (yes/no)

Enter your answer

45. Additional Comments

Enter your answer

☑ Send me an email receipt of my responses

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