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WEDE6021 – Self Reflective Essay

**Introduction**

The Portfolio of Evidence (POE) project for WEDE6021 has been a thorough and eye-opening experience that has enabled me to integrate my technical expertise with my collaborative capabilities. A completely functional web application prototype for "Pastimes," a fictitious online store that specializes in branded used apparel, was the goal of the POE. We were able to obtain a comprehensive grasp of the entire development process because the project was broken up into several pieces that covered everything from the original research and design to the prototype and final implementation. I was able to hone a variety of talents through this assignment, such as PHP, MySQL, user interface design, and workgroup dynamics, all of which helped me create a working web application that satisfied the assignment's specifications.

**Role in the Team**

In our team, I took on a dual role, focusing on both backend development. My responsibilities in backend development included creating the database tables, I was also responsible for coding the functionality that allowed users to add items to their cart, which required implementing secure sessions to keep the shopping cart persistent across pages.

In addition to backend development, I played a role in coordinating the team’s progress. I scheduled regular check-ins to track our completion of tasks and address any concerns early on. Working in a team did come with some very minor challenges, as me and my group partner agreed with almost everything but some occasional disagreements about design decisions and task distribution did arise. However, we managed to overcome these differences by clearly communicating our points of view and finding a compromise that incorporated the best aspects of both approaches. Overall, our team grew stronger as we developed a shared understanding of each member’s strengths and how best to utilize them.

**Research, Technology, and Presentation of Information**

Research was essential to resolving technological issues and identifying novel features to include in our web application during the project. The first time I had to look for information was in the early stages when we were developing the database structure and creating the entity relationship diagram (ERD). In order to determine how to best depict the relationships between users, items, and orders in a MySQL database, I looked over a number of websites. I was able to properly organize our database tables thanks to this research, making sure they were optimized for quick data retrieval and normalized.

The second scenario that required extensive research was when I was implementing the user registration and login system. I wanted to incorporate password hashing for security, but I was unfamiliar with how to implement it using PHP. I researched secure password hashing techniques, including using PHP’s password\_hash and password\_verify functions, to ensure that user passwords were stored securely. This research helped me successfully implement a secure authentication system that prevented unauthorized access.

**Personal Strengths and Weaknesses**

Throughout this project, I identified several strengths and weaknesses in my approach to completing tasks. Some tasks I excelled at, particularly those related to backend coding. I found that my strengths included quality Focus, problem-solving, communication, adaptability, and time management, which all helped me complete my assignment.

1. **Quality Focus**: I prioritized quality by consistently reviewing my work for accuracy and functionality. This commitment to quality helped us avoid issues later and kept the project on a strong foundation.
2. **Problem-Solving**: Throughout the assignment, I encountered several challenges, particularly when implementing user sessions and secure login functions. My problem-solving skills enabled me to research solutions and implement them effectively.
3. **Communication**: As a team, communication was key to our success. My role as a project coordinator required regular updates and the ability to clearly explain technical aspects of the project to my teammates.
4. **Adaptability**: We had to pivot on some design choices as the project progressed. I quickly adapted to these changes, ensuring that our project continued moving forward without significant delays.
5. **Time Management**: With multiple components to complete, managing my time effectively was essential. We set mini-deadlines for my tasks and communicated them to the team, which helped us maintain steady progress.

However, I also identified areas where I could improve. One area I struggled with was user interface (UI) design. Since I focused mainly on backend tasks, my skills in UI design were not up-to-par compared to other areas. As a result, our initial design was functional but lacked aesthetic appeal. To improve, I reviewed CSS and front-end design resources, but I found that UI design would require further practice beyond this project. I plan to dedicate more time to learning design principles and CSS frameworks to create visually appealing and user-friendly interfaces in future projects.

Another area where I encountered difficulties was implementing some of our more advanced innovative features. This experience taught me the importance of thorough planning when structuring code and ensuring that all use cases are considered from the start. Time Management Under Pressure was also a struggle, I am normally good when it comes to time-management but juggling this project alongside other assignments was a challenge. At times, I struggled with prioritizing tasks efficiently, which led to working under pressure closer to deadlines. I plan to improve by using more structured planning and setting smaller milestones to manage my time better.

Managing Technical and Creative Aspects: Although I felt comfortable with the technical specifications, I occasionally found it difficult to incorporate artistic components, such as the visual design, into my work. I came to see that both utility and aesthetics are necessary for a successful application, and I want to get better at striking a balance between the two.

**Conclusion**

In summary, the POE assignment for WEDE6021 was a challenging yet rewarding experience that provided invaluable lessons in web application development, teamwork, and self-reflection. Working collaboratively allowed me to leverage my strengths and learn from my weaknesses, ultimately producing a functioning e-commerce prototype that met the project’s requirements. Through this project, I developed a strong understanding of backend development, learned the importance of secure coding practices, and grew more comfortable navigating the complexities of team-based projects. I am confident that the skills and insights gained from this assignment will serve as a solid foundation for future endeavours in web development and beyond.