IM3080 Design and Innovation Project (AY2023/24 Semester 1)
Individual Report

Name: Kwok Kai Feng Dylan

Group No: Group 1

Project Title: NTUMart

Contributions to the Project (1 page)

Planning phase:

1. Assist in creating database diagram

Backend:

1. Product Listing
2. Sorting and filtering of products
3. Creating a SQL populator
4. Assist in image file directory

Video:
1. Scripting
2. Directing the flow of video

Presentation, Poster and Report:

1. Filled in the contents for the poster
2. Did the conclusion and future development slides
3. Assist in decorating the slides
4. Assisted in providing diagrams for report

Reflection on Learning Outcome Attainment

Reflect on your experience during your project and the achievements you have relating to <u>at least two</u> of the points below:
    (a) Engineering knowledge
    (b) Problem Analysis
    (c) Investigation
    (d) Design/development of Solutions
    (e) Modern Tool Usage
    (f) The Engineer and Society
    (g) Environment and Sustainability
    (h) Ethics
    (i) Individual and Team Work
    (j) Communication
    (k) Project Management and Finance
    (l) Lifelong Learning

Point 1: Communication

Working with 9 new individuals with different background, I feel that communication plays a vital role in making or breaking a project. At the start of the project, we came together to generate ideas which has resulted in 3 different solutions and finally concluded working on an application which aims to provide NTU students with a platform to buy and sell items at convenience. Having effective communication has allowed us to be open with expressing our concern and thoughts which will enable us to focus on a similar end goal. We then split our job scope evenly and work on our respective tasks based on our individual strengths. Having proper communication ensures that we can complete our assigned tasks on time. Weekly meetings were also organized to ensure that our progress was on schedule and to update the rest of the team on the changes or milestones they have completed. As the frontend and backend group was split to work on our own individual task, it is crucial to update on the progress so that both groups can work together eventually to make the system work. I was tasked to work on the populator and I had to work closely with the group members who were working on the products and user API so that I was able to generate SQL data related to their table. Having clear communication ensures that we do not make any unnecessary changes and that everyone stays on the same page so we can complete the given task on hand rapidly and ensure that things are functioning properly. There were many times that our initial idea may not work out or be the best after trying out and hence it is important to voice out when faced with problems so that we are able to resolve the issue in the quickest and best way possible. Having proper communication is a lifelong skill which could be applied anywhere from school to work force.

Point 2: Lifelong Learning

Throughout this journey, it was quite challenging for me personally as there were multiple software and programming language that I was not familiar with. There were many tools that we used that such as GitHub and Jira. GitHub was a tool was used to review and merge multiple codes together. It provides us with the flexibility of being able to work remotely and still get the tasks completed. Jira was a project management tool where we used it to track and manage task. We were all assigned different tasks, but Jira allows us to prevent conflicts and work cohesively. It was my first time using these tools which made it difficult for me to navigate around. However, I am grateful for teammates who are patient and guided me on how to use the tools efficiently. I was assigned to help on the backend for this project and after discussing, we have decided to use java spring boot as our programming language. Personally, programming has always been one of my weaker modules and to learn a new language from scratch was challenging for me. I had to constantly refer to online materials to draw references and to understand how the code works. Eventually I was still able to complete the tasks that were assigned to me with the guidance of some of my teammates. From this, I also learnt how I was able to search the net efficiently to look for the resources that I need instead of constantly researching aimlessly. This skill could also be applied to other areas as well which could help save time and increase productivity. Throughout these 13 weeks, I am thankful for my group members for being patient with me and constantly encouraging me when I was struggling. There were many values and attributes that I had learned from my groupmates other than just the programming part such as perseverance, patience, having proper communication and many more. I believe that as individuals, we are all constantly learning knowingly or subconsciously and it is important to always improve ourselves with updated skillsets and personally as a person as well.