

Analysis of Learning Outcomes

Programming Project 1 has several set learning outcomes that students are expected to have achieved throughout the course. There are five learning outcomes, and they are 'Enabling Knowledge', 'Critical Analysis', 'Problem Solving', 'Communication', 'Teamwork', and 'Responsibility'. Now that it is the end of the semester and the course is coming to an end, it is important for the team to reflect on the project and activities that have been performed. This document details the team's analysis of these learning outcomes and how we have engaged in them throughout the semester.

Enabling Knowledge

Throughout the project, the team had been able to enable their knowledge when implementing tasks and functions into the project. This was especially prevalent during the early weeks of the project when the team was focused on planning. In the early weeks of the project, we focused on planning for the whole project and this meant understanding which technologies and languages that we would make use of. Each team member would suggest technologies and languages that we could make use of, usually these would be things that they have knowledge on and were familiar with. One example would be when we chose to make use of Python as our back-end language, since the team was familiar with using Python and had enough knowledge to make use of it. We also understood many of the agile processes and techniques to make use of when developing the project. We followed the SCRUM methodology and did our best to have at least two weekly meetings/daily stand ups to go through what the details of the progress of the project.

Critical Analysis

Critical analysis was performed by the team whenever tasks had been completed or if there were any issues or errors faced. Once a task had been complete, it would be analyzed and evaluated to ensure that it was completed to a high standard or if something needed improvement. If something needed improvement or needed to be fixed, it would be explained clearly to the team so that it could be analyzed. Team members would communicate what they understood of the tasks or of the issue. Possible solutions would be proposed, and once implemented, we would evaluate and concluded how happy we were with the outcome. An example of showing this critical analysis is when implementing the front-end design of the project. Often, we found ourselves not happy with the front-end design and would provide feedback and an explanation of the issue that the member would have with the design. Suggestions would be suggested and implemented, then evaluated. Our front-end design had gone through various designs because once we reach evaluation, we would repeat the cycle and continue to look to analyze it to improve it to a higher standard.

Problem Solving

An instance where problem solving had been displayed by the team was when we were implementing the function of searching for nearby cars. We had the issue of not really knowing a way to implement this function and needed to see if there were other tools or technologies that we could make use of. When this issue was brought up, the team was able to take time to search of possible solutions for tools that

could help in implementing this function. The use of Geocoding had been suggested and reviewed. We took time to research more about how to use this tool and it resulted in allow us to implement the search for nearby cars function. We found that it was a very useful tool that could be used for obtaining coordinates of locations. This was also very helpful to us because we could see that it has many other uses that we may want to implement in future projects. Throughout the semester, we had faced many problems that would involve our problem-solving skills. This example is just one instance of where this was displayed by the team. There had been many times where errors or other issues had been raised, and we had to gather as a team to solve the problem.

Communication

Communication was a key aspect to the success of the team. Every week, we had at least two meetings, one meeting with our supervisor, and one meeting without the supervisor. These meetings were scheduled on Thursday from 10:30am to 12:30pm, and on Sunday from 3:00pm to 4:00pm. If we needed to organize more meetings in the week for whatever reason, we would also ensure that would be scheduled in a timeslot that most members would be available for. We had also made strong use of Microsoft Teams, creating multiple channels to ensure that we were able to organize our messages to each other. In each meeting, team members would go around and explain what they have completed, what is being worked on, what may need assistance on, and what needs to be worked on in the future. These meetings can be seen through the recordings that we had throughout the semester. The chat logs between the members can be seen in our Microsoft Teams chat channels.

Teamwork

Within our team meetings, we had all team members contribute to the meeting and explain what they have completed, what is being worked on, what may need assistance on, and what needs to be worked on in the future. When planning for each sprint, when organizing the tasks to be assigned to each team member, we ensured that each member had an equal number of tasks to complete and sometimes we would also assign multiple members to work on the same task. This was to ensure that the task could still be completed on time if it was a difficult or time-consuming task. Members had been able to complete most of their tasks on time or when we had asked to complete them by, if a task was not completed on time, this would be communicated to the team and we would help to organize for it to be completed in the next sprint. We had been able to support each other as team members as well as to ensure a comfortable and effective team environment.

Responsibility

All team members had been able to show responsibility in their work by doing their best to ensure that the tasks that were assigned to themselves would be completed on time. If a task was not completed on time, this was also taken responsibility of and communicated to the team. This ensured that all the team members understood the situation of what is happening with the task and ensured that if further action needed to be taken, the person responsible would complete this. Often when implementing functions and completing tasks, all team members had been able to set their own goals and to execute on these goals. All team members had also been able to show compliance to the code of ethics, and to act ethically

and legally.