Assignment 3

**Tools and Technologies**

There were quite a number of tools and software that were required for this part of the project. For one, we were each required to record ourselves talking about the project and then later meld each part together. This would require an editing software such as Windows movie maker (which is accessible to everyone who has a windows computer.) One of our team members, Hoang, has access to high-end software such as Adobe Premiere Pro and has used it on several occasions for his previous studies, therefore also having a licence key. While software like Abode isn’t a necessity, as the video could also be completed in Windows Movie Maker, it gives a lot more freedom and choices to make the final product feel more unique compared to if we used preinstalled software. We decided to give him this task due to inexperience that the rest of the group had with video editing software. Additionally, other forms of technology were also utilised to aid us in making a proper video, such as microphones and a proper desktop setup. This was imperative to complete the task as; you need something to not only record your video but audio at a reasonable quality. Each team member was required to at least have the bare minimum so that the process could run at a normal pace without any major issues.

Another program called Sketch up was used for redrawing the design of the project idea. This was chosen as it is a well-known program that can create 3d models, which make for a more accurate concept that could later be turned into a prototype. While these forms of technologies were new to most of the team, previous software and tools such as GitHub, Amazon Web Services (AWS) and Microsoft Teams were used during this process. This wasn’t an issue as everyone knew how to use each tool by now, so it didn’t cause any problems.

**Skills and Jobs**

As our group project would now be further funded after all the documentation and prototype, it would allow us to develop the idea into a more whole result compared to if we had limited funding. The project idea, that is basically a robot that cleans all the rubbish underwater, would greatly benefit from the extra funding. This would be used for materials and labour costs that go towards the hardware and software of the robot, while also allowing us to bring in more people with knowledge on how to go about this in an efficient manner. Firstly, everyone that is tasked with this project would have to have these important skills: communication skills, teamwork/teambuilding, aspects of leadership and productive work mindset. I would initially hire a project manager to aid in the overview of the entire project, as there would need to more changes included in the end result due to an external source now funding the project, which would help increase productivity and streamline the process. Next, there would be need to hire coders/software developers who know how to create functional programs that can be stored on the necessary hardware to be able to create a functioning product. They will not only have the basic still sets that are needed, such as being able to communicate and code in a timely manner, but also a main language they can specialise in to ensure that they are proficient with their work.

Also, another aspect that is important would be people who are apt at creating and building machines; they would not only once again create less hassle in the prototype’s creation, but also aid in creating a more polished and refined result that would be, in theory, much better if we were do to it without any knowledge on how to solder, meld pieces together, and create a form factor that would be necessary to work underwater. While gathering people with expertise in their respective fields is important, another importance is the ability to work together as a team. This will be achieved by first getting to know each other, and doing team building exercises beforehand. After this is completed, then team composition and morale will have a higher chance of being high rather than low.

**Timeframe**

Our first meeting we took our time to establish what each person was doing, since this assignment had a lot to split in comparison to the previous assignments. When we decided upon who would do what, which was finalised in the first meeting, we also figured out what days we would hold our meetings so that we know that everyone is on track (every Tuesday and Thursday for the next three weeks.) Additionally, as we had many other workloads from other subjects, we understood that it this project should be done over the three weeks and not rushed. Each member was given an appropriate amount of work to do in order to be fair with everyone.

**Here is the list of what was given to each member of our group:**

**Tools and technologies, Timeframes, skills and jobs** – Hayden

**Scopes and Limits, aims, project ideas** – Hoang

**Risks, Group processing, rolls, overview** – Nirav

**Plans and progress, Testing** – Youssef

**Designing the website** – Yat

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| **Member** | **WEEK 9** | **WEEK 10** | **WEEK 11** | **WEEK 12** |
| Hayden | Knowing what parts of the assignment to do (Tuesday)  Meeting with Dr.B (Thursday)  Start timeframes to know how to go about assignment | Start and finish ‘Tools and technologies’, research what are needed for this assignment (2-3 hours)  Thursday meeting to check up with progress | Almost complete ‘skills and jobs’  Thursday meeting about the progress and any issues with doing their respective parts | Finalise work that has been proofread (1-2 hours)  Chat with members about other last-minute importance’s  Finalise timeframes |
| Hoang | Knowing what parts of the assignment to do (Tuesday)  Meeting with Dr.B (Thursday) | Start and finish ‘scopes and limits’ (2-3 hours)  Look into ‘project ideas’  Thursday meeting to check up with progress | Almost complete ‘aims’  Thursday meeting about the progress and any issues with doing their respective parts | Finalise work that has been proofread (1-2 hours)  Chat with members about other last-minute importance’s  Worked on ‘project ideas’ from Yat to make sure website is completed |
| Nirav | Knowing what parts of the assignment to do (Tuesday)  Meeting with Dr.B (Thursday) | Start and finish ‘Risks’ (2-3 hours)  Look into ‘group processing’  Thursday meeting to check up with progress | Almost complete ‘group processing and rolls’  Thursday meeting about the progress and any issues with doing their respective parts | Finalise work that has been proofread (1-2 hours)  Chat with members about other last-minute importance’s  Worked on ‘overview’ from Yat to make sure website is completed |
| Youssef | Knowing what parts of the assignment to do (Tuesday)  Meeting with Dr.B (Thursday) | Start and finish ‘Testing’ (2-3 hours)  Look into ‘plans and processing’  Thursday meeting to check up with progress | Almost complete ‘plans and processing’  Thursday meeting about the progress and any issues with doing their respective parts | Finalise work that has been proofread (1-2 hours)  Chat with members about other last-minute importance’s |
| Yat | Knowing what parts of the assignment to do (Tuesday)  Meeting with Dr.B (Thursday) | Start building and conceptualising the website that stores all the parts (2-3 hours)  Thursday meeting to check up with progress | Continue working on the website  Thursday meeting about the progress and any issues with doing their respective parts | Finalise work that has been proofread (1-2 hours)  Chat with members about other last-minute importance’s |

The tools used in this assignment shouldn’t be too hard for each member to use, as there are many instances where we use previous software and tools from assignment 2. The new notable software and tools however should roughly take a bit of time getting used to the first time around (30 minutes.) This won’t hinder performance that much but might be annoying to use in some regard. As we finish to write each part of the assignment, which will happen over a span of three weeks (2-3 hours per week), there will also need to be some time to make sure everything is finalised and ready to submit. Another notable thing that will need to be recorded is our meeting which usually span 20-30 minutes in length so we have a good discussion on how everyone is going.