Please see my portfolio here: https://aw22433.github.io/e-portfolio/Module4.html

Reflection and summary of the Group work – Assignment 1

Summary of assignment requirements

I was assigned to group 1 for the group work portion of this module. There were 5 of us in the group and we had approximately 5-6 weeks to complete the first part of the assignment. This first part required us to create a project proposal based on a case study. The goal of this project was to identify requirements for a new design of a computer and then create a development plan to produce 2000 devices for delivery to the EDC within a strict budget. The key components of this project required us to agree on a methodology, identify the key requirements for our device, create and cost our design and finally outline our project plan and key milestones.

Key events and reflections from this assignment

Given the limited timescale of this assignment, we quickly organised and set up a working group in Slack as the main method of communication. We briefly discussed team roles for each group member, and I had an initial read through the case study and the requirements prior to our first meeting. I was assigned as Project manager for the group. During this initial meeting, we read through the assignments and requirements. We also agreed that an Agile methodology would be best.

At this stage, having read through the assignment and the case studies, I thought this would be a very straightforward and simple assignment. I didn't think it would be particularly difficult, particularly with 5 of us collaborating and the time that we were given to complete this task. I was, however, a little daunted by the fact that I was project manager and would therefor have to take on a leadership role in this task. Prior to this assignment, I had no

experience of project management. However, I was keen to learn and as project manager I felt I would get a lot more out of this assignment.

From this point on, I took the lead in the meetings. Our next meeting was not for another 2 weeks, as we felt that we had plenty of time to complete the assignment. In the meantime, Mohammad and I had both created templates for the final project assignment. Unfortunately, we had not communicated prior to this otherwise we could have both saved time by collaborating on one document. This was a minor inconvenience, since we had each spent no more than a couple of hours and both templates contained useful components however it served as a lesson to avoid similar scenarios later in the project, particularly for the more arduous and time-consuming tasks. From this point onwards, I felt it was important to communicate and assign tasks to ensure that work was not duplicated and no one in the team would waste their time and effort. I took some time to combine our templates, so we had a good template to work with. This was a lesson which I tried to learn from, and it did have an impact on how I acted later in the assignment.

I kicked off the next meeting by running through the template and discussing the various tasks we had to do. Mohammad, who had taken on the role as requirements manager, had also started working on the Requirements table. We all felt this was a key task and should be completed before the other tasks could begin since the whole project could not proceed without the requirements being agreed. We all agreed to contribute to the table, with Mohammad and Mustafa taking the lead. We set a deadline for the following day, with the Gherkin specifications to follow shortly after. Unfortunately, this deadline was very ambitious, since the task of designing the system was significantly more complex than we first envisioned. We communicated through slack that the deadline was not achievable, and that the system design should not be rushed as this was key to the success of the project. Although I had initially expected this task to be straightforward, it quickly became obvious that this task was significantly more difficult than we first anticipated. It was not possible to meet all the specifications outlined in the case study, so we had to prioritise and compromise

on several aspects of the design. We decided that this would be acceptable if we could justify our decisions in the project proposal. Between the group, we collaboratively created 4 different designs, each with their own compromises on the specifications. We found that the most difficult part would be to meet the budget requirements. Unfortunately, this task had been so time consuming that we had still not completed the gherkin specifications or assigned the other tasks. As project manager, I found it difficult to keep to the schedule. I also felt that, although everyone had collaborated, the distribution of the work up to this point was unfair on certain members of the team. This was because we had underestimated the design phase of the project. To overcome this, at the next meeting we set clear deadlines and assigned tasks to all team members. Everyone continued to communicate and collaborate with each other through slack and I felt at this point the group was working very well together.

With less than a week to go, we finally had an agreed design, however when we then included the cost of resources, including the personnel, we had to further cut the costs of our device and compromise to the point where our design did not fulfil the specifications to an acceptable standard. I then suggested that rather than design, manufacture and deliver 2000 devices to EDC, we create multiple batches, sell half of the devices to the public to raise further funds and this would significantly increase our budget for the whole project. Rather than splitting the resource costs across 2000 devices, we could therefore split these costs across a larger number of devices. This batch plan was the only viable way to meet most of the requirements of the specification and remain within budget.

I was proud of this plan, as I feel this idea significantly contributed to the success of the project. Prior to this, our design was very limited. I explained the plan to the group, and we decided this was the way forward. We finally had a final, agreed design as well as a manufacture and delivery plan for our proposal. At this stage, we only had a couple of days left until the deadline and there was still a significant amount of work to be completed. I was working on various aspects of the project proposal. One area which I was working on was

the methodology and justification for this. At the start of the project, we had agreed on the agile methodology as we had agreed this would be the most suitable. However, upon further research, I found that this methodology was not the most suitable for hardware design and development. Particularly not with the strict deadline and budget of our project (Andrei et al., 2019). I raised this to the group, and we decided to go for a dual approach with Agile for the SW development and waterfall for the HW. Again, I felt I had added value to the team however, I should have raised this much sooner in the project. I feel we left too much to the last minute because we had underestimated this task and I felt responsible for this as the project manager. This belief was further reinforced when we had a final meeting on the night of the deadline. While most of the team had completed our tasks already and the project proposal had almost been finalised, there were several tasks still to be complete. The main task was the Gantt chart which had not been finalised yet. This meeting last for several hours and the pressure was on to complete this before the deadline. I believe this was unfair to the team and I took this as a lesson for the next assignment.

<u>My contribution</u>

I believe I contributed significantly to the success of this task. Please see the highlighted sections in blue of the project proposal in the portfolio linked above for the sections of the proposal which I wrote. These sections included the executive summary, Development methodology and deviations from specifications. I also contributed to the other sections of the report including the table of requirements, device design, assumptions and limitations and the risk plan.

The 3-batch plan was also my idea, which I believe contributed significantly to successfully meeting an acceptable specification within budget and allowing us to create a profitable and viable project plan.

> **Aaron W** 6:39 PM
> Hey guys, sorry I am only just home from work.. long day. Just a suggestion though. Is there anything to say we need to provide their machines all in one batch and by a certain date? I only saw that they must be ready for sale in 13 months. Could we make as many machines as possible (within budget), provide half to EDC and sell the other half to the public to generate more funds. It states "Your budget is £500,000 and you cannot go above this until you have generated income from the sale of the machines." Then when we have generated enough income, we can provide EDC with the remaining machines? I see this as the only viable way to fulfil the criteria without going bankrupt.. I would be happy to create a plan, with a timeline and milestones to try to make this work? We would just have to accept that all machines sold to EDC have made a loss.
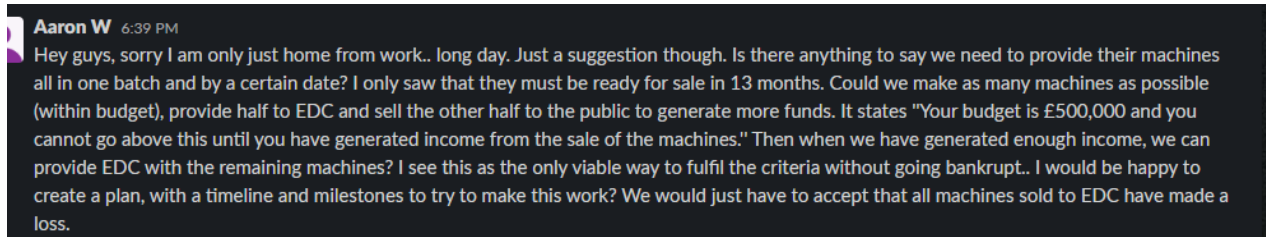
Fig 1. Screenshot of batch idea posted in Slack.

Finally, as project manager, I had a key role in the meetings, assigning of tasks and the overall project.

My evaluation of the project proposal

Overall, I was relatively happy with this initial assignment. The feedback was mostly positive; however, our proposal did lack sufficient discussion justifying our decisions to compromise on the specifications. Unfortunately, due to the very limited word count, this was an area which we could not add too much detail too. There was also negative feedback because we did not sufficiently discuss our testing plan.

In my opinion, I felt we had a strong plan, with regards to the batch plan and selling to the public to raise further funds. I believe our design was as good as it could be given the very limited budget and I believe our proposal was well written. Overall, I was happy with the proposal and the feedback we received.

In reflection, I learned a lot from this assignment, particularly in my role as a project manager. There were areas which I felt I could improve, and I believe I did improve throughout this project. Initially, we duplicated some of the work due to a lack of communication or clear division of the tasks, however we resolved this and ensured this didn't happen again later in the assignment. I believe we all underestimated the difficulty of this assignment, which meant we set unrealistic deadlines and initially didn't share the workload evenly. Again, we resolved this by redistributing the tasks, ensuring everyone collaborated and by changing the deadlines accordingly.

The key lessons I learned from this assignment are the importance of strong communication, realistic deadlines, and fair distribution of the workload. In the next part of the assignment, I hope to put this into practice.

Reflection and summary of the Group work – Assignment 2

Summary of assignment

The second part of the assignment was split into 2 parts. First, we had to amend our design due to changes to the specifications as described in part 2 of the case study. We also had to present our updated designs and project plan via a recorded PowerPoint presentation. Finally, we had to create an application for cost estimation for the design and manufacture of devices such as the one we designed.

Key events and reflections from this assignment

For this assignment we decided to split into 2 separate teams in order to tackle the 2 components in parallel. Etkin and Mustafa worked on the Application, while Aaron Aubeck, Mohammad and I all worked on the presentation. We opted to not assign roles like we had in the previous assignment as we decided this was not necessary. However, I was still keen to improve from what I felt went wrong in the previous task. We had clearly assigned tasks so the work would not be duplicated, and we were keen to complete our tasks as early as possible rather than waiting until close to the deadline as we did before. While Mohammad amended our design and adjusted out selling plan, I began working on our presentation. I started by setting out a template for our presentation and assigned the content for each of the 10 slides. Over the next couple of weeks, we collaborated on the transcript. I then designed the PowerPoint presentation. We were advised that all team members should be involved in the recording of the presentation. I was assigned the 5th and 6th slides which contained the project schedule and the delivery and selling plan. At this point we were all to amend our transcripts, add content to achieve a target time and record our final

presentation. I prioritised these tasks to complete them all in good time. Overall, I felt that I had learned from the mistakes from the previous assignment.

My contribution

Once again, I believe my contribution to this task was significant, particularly with regards to the slides and the transcript of the presentation. I completed all work in a timely manner and continued to contribute to the other areas of the assignment where possible. Please see the transcript in the portfolio linked above, with the parts highlighted in blue marking my main areas of contribution to this task. I regularly offered my assistance to all other members of the team with their tasks.

My evaluation of this assignment

I believe we created a strong presentation, with a viable project plan. We collaborated well and I was happy with the overall result of our work. I felt that we, as a group, learned a lot from the first assignment and we worked hard to improve for this assignment. We continued to have strong communication and quickly assigned the tasks. Furthermore, we all completed our work in a timely manner, and stuck strictly to the deadlines that we had assigned ourselves. We are still currently awaiting the feedback for this assignment.

References

Andrei, B. A., Casu-Pop, A. C., Gheorghe, S. C., Bolangiu, C. A. (2019) A study on using waterfall and agile methods in software project management. Journal of Information Systems and Operations Management 13(1): 125-135.