

ITS67404 Internet of Things (IoT)

Assessment Task 3 GROUP ASSIGNMENT

Demonstrate capability to work as a team, maintain positive relationship, manage conflict, and lead others in **writing a manuscript** on the findings of the IoT device constructed.

HAND OUT DATE: 10th January 2023

HAND IN DATE: 24th February 2023

WEIGHTAGE: 20%

Instructions to students:

- The assignment should be attempted in **groups of 3-5 students**.
- Complete this cover sheet and attach it to your assignment – this should be your first page.

Student declaration:	
<p><i>I declare that:</i></p> <ul style="list-style-type: none"> ▪ <i>I understand what is meant by plagiarism</i> ▪ <i>The implication of plagiarism have been explained to us by our lecturer</i> <p><i>This project is all our work and I have acknowledged any use of the published or unpublished works of other people.</i></p>	
Names of Group Members	
Name	Student ID
1. Satoaki Ishihara	0354208
2. Aaron Peter	0354475
3. Woo Zhi Yue	0352258
4. Benjamin Khoo Boo Hock	0348453
5. Tiy Zhun Jie	0354507
6. Hasan Mohammad Ferdous	0351878

2a) A brief discussion about the strengths and weaknesses of the project team and how if these were managed effectively (minimum 2 paragraphs)

Aaron Peter

As a student in an IoT project team, our team had both strengths and weaknesses that impacted our project's success. One of our biggest strengths was our diverse skillset, as we had team members with expertise in programming, hardware, and data analytics. This allowed us to approach problems from multiple perspectives and come up with innovative solutions. Additionally, we had a clear understanding of our roles and responsibilities, which allowed us to work efficiently and avoid overlapping efforts.

However, we also faced some weaknesses that affected our progress. One of the significant weaknesses was communication breakdowns, as we struggled to effectively communicate our ideas and opinions to each other. This led to misunderstandings and delays in completing tasks. To manage this weakness, we implemented weekly check-ins and feedback sessions, which helped us address communication gaps and ensure that everyone was aligned with the project goals. Additionally, we assigned a project manager who was responsible for maintaining regular communication and ensuring that all team members were on the same page.

In conclusion, our IoT project team had both strengths and weaknesses, but by managing them effectively, we were able to deliver a successful project. We leveraged our strengths by utilizing our diverse skillset and roles and responsibilities, while managing our weaknesses by addressing communication breakdowns and assigning a project manager to maintain regular communication.

Alexis Woo Zhi Yue

During the duration of the project, our team benefited greatly from the diverse skill sets that each member possessed. This diversity allowed us to take on a wide range of challenges and tackle them from various angles. Everyone in the group had their own strengths and expertise, which enabled us to approach problems from different perspectives and generate creative solutions that we may not have otherwise considered.

Furthermore, the team was very adaptable and open to new ideas and approaches. Whether it was designing the project or making changes to reports, everyone in the group was very accepting and flexible with any new ideas or changes that we wanted to make. This level of flexibility and openness led to a supportive team culture, where most of us felt comfortable expressing our opinions and offering suggestions for improvement.

However, in some instances, I believe that communication between each member wasn't as good as it should've been throughout the whole project. There was also a slight lack of collaboration throughout the project caused by inadequate communication between each team member. Finally, it's important to establish clear goals and objectives for the project, and ensure that all team members understand and are working towards those goals. This can help ensure that everyone is working towards a common goal, and can help prevent individual team members from working in isolation and causing incohesiveness in the presentation which was what unfortunately happened to our group.

Tiy Zhun Jie

The strength of our whole team I think lies in the fact that everyone is very good at what they do and also works very hard. The strengths of each person are clearly visible in the day-to-day process of getting along with each other; there are those who are good at using search engines, those who are good at circuits, those who are good at interacting with teachers, etc. The combination of everyone's strengths complemented each other and made up for the weaknesses of the others, resulting in the whole team working together very efficiently and completing tasks to a high degree. By and large, there are no late deliveries. Plus, the fact that different people specialise in different areas also allows them to teach those who don't know much about them and progress together.

However, our team is not perfect. There are some weaknesses, such as communication, that need to be strengthened. Because it is a short semester, many people are busy, so we have less time to discuss together and it is difficult to take into account everyone's time. The lack of timely communication may lead to delays in the transmission of information or misinformation, thus causing misunderstandings. Therefore, I think we can still improve on this, so that if there is any misunderstanding, we can solve it at the first time, so that the team can be more stable and harmonious.

Hasan Mohammad Ferdous

During this group assignment, we as a team had both been blessed with good qualities and also had obstacles that we faced on our way through completing the assignments. Individually everyone in the team had the potential and possessed the necessary skills to overcome the requirements needed to complete the projects. This was our biggest strength and we used it as our advantage. Each individual had their own strengths and weaknesses, and this came to light as we progressed with our assignment. Some of our members did the excellent job of researching everything related to IoT, so that the base idea of the assignment could be established. Other members were masters at designing the architecture and cloud system diagrams, with some of us helping in the description for the report and slides. This led to the workload being balanced and reduced the stress among the members.

Sadly, there were weaknesses as well in the group. There was some tension and disagreements between the members during the initial few weeks of our project, and lack of communication as well. For example, 3 of the members were close-knit and worked among themselves. This made other 3 of us feel like outsiders in the group and sometimes this made me feel angry/irritated. For e.g., initially the group leader and two of his close acquaintances only worked among themselves and discussed with us only when it came to the necessary ideas for the project, or at least that's how I felt. Some of the members were left out and only a handful of people in the group made the necessary decisions. Initially communication between the group members was not sufficient and this made situations worse and caused psychological rifts between us. It went to the point where we almost became divided into subgroups and certain members only spoke with specific people, and this caused me to become confused and ask them to hand me out some tasks for the project.

However, as time progressed the communication gap between us was acknowledged and we started communicating with each other. Members against whom I held a grudge, I started to have different opinions about them, and our work was in perfect sync. The issues mentioned

could have been better managed if we as a group would have communicated more openly as a whole, and addressed each other's concerns. This would have led us to be better understanding of each other and would have allowed every one of us to make the important decisions needed to progress with the project. As with everything, if we checked up on each other or certain tasks, I believe the issues mentioned could have been avoided and this would have created the ideal situation in the group.

Satoaki Ishihara

One noteworthy aspect of our group activity was the individual strengths of each member. Throughout the group activity for the IoT module, each member possessed strong advantages and was able to fully utilize them, which was our greatest strength. For example, there were members who excelled at background study research, others who were skilled in slide design, and some who demonstrated their talents in cloud system design. With each member having different strengths, competition was minimized and we were able to work to our fullest potential, which was a great advantage.

However, on the other hand, I believe that communication among all six members was relatively low. There were some who only spoke with specific members, and there were significant differences in the amount of communication between members. There were some areas where we could have put in a little more effort to ensure that all six members shared information equally. In particular, as the leader, I was aware that this was somewhat pronounced, and I regret that we often ended up talking in groups of two or three, which prevented us from engaging in sufficient dialogue with all members and fostering persistent collaboration.

Benjamin Khoo Boo Hock

Our group had both strengths and weaknesses. In terms of strengths I would say that we were able to consistently produce high quality work. From idea generating to research to writing, I would believe that the work done could be counted on as being of a high enough quality to be submitted. This strength was managed by giving a high level of autonomy to each of the group members. This meant that the group members were able to act independently, increasing the overall efficiency of the group. It also meant that we could cut down on time taken to correct the work done.

Our main weakness would have to be communication. Communication within the group was not the greatest. It can be said that when working in a group project where there can be radio silence for long stretches of time before a sudden flurry of communication before silence again and a large swath of work is complete can be disconcerting. This weakness was most prevalent early on as we were trying to get to know each other and slowly disappeared as time moved on with the later weeks consisting of more communication between group members on the state of work and advice on what to do.

2b) An evaluation of lessons learnt about teamwork - what would you do differently (and the same) given the opportunity (minimum 2 paragraphs)

Aaron Peter

As a student in an IoT project team, I have learned some valuable lessons about teamwork. One of the most important things I learned is the importance of effective communication. Communication breakdowns can cause delays and misunderstandings, which can ultimately lead to project failure. Moving forward, I would make sure to communicate more effectively by listening actively, clarifying any misunderstandings, and providing timely feedback to my team members. Additionally, I would encourage my team members to ask questions and speak up if they are unclear about any aspect of the project.

Another lesson I learned is the importance of having a clear understanding of roles and responsibilities. In my project team, we were able to work efficiently because everyone knew their role and was responsible for specific tasks. However, we could have done better by ensuring that everyone was aware of their deliverables and deadlines. Therefore, if I had the opportunity, I would ensure that all team members were clear about their responsibilities and deadlines from the beginning of the project.

Furthermore, I would ensure that we had regular check-ins to review our progress, address any challenges, and provide feedback. I would also encourage a culture of collaboration and mutual respect, where team members could learn from each other and contribute their unique expertise and ideas. By learning from these lessons, I believe that my team and I would be better equipped to work together more effectively, improve our communication, and achieve our goals more efficiently in future projects.

Alexis Woo Zhi Yue

If given the opportunity, it would have been beneficial for our team to have more frequent meetings throughout the project to ensure that everyone was on the same page and to verify each other's progress. In particular, setting up weekly progress check meetings would have provided a chance to update each other on individual tasks, and address any challenges or concerns that may have arisen. Establishing clear communication channels and setting expectations for regular check-ins can help ensure that everyone is working towards the same goals and can help mitigate any potential misunderstandings.

Additionally, it would have been helpful to define each team member's role more clearly at the outset of the planning process. By outlining specific responsibilities and tasks, we could have better coordinated our efforts and ensured that each team member was contributing effectively towards the project's success. This, in turn, would have made our work more cohesive and collaborative, allowing us to leverage each other's strengths and expertise.

Ultimately, effective teamwork requires a combination of clear communication, collaboration, and trust. By creating more opportunities for team members to collaborate and work together, we could have fostered a sense of shared ownership and responsibility for the project's outcomes. If we had scheduled more team meetings and established clearer expectations for our roles and responsibilities, I believe our project would have been more successful and cohesive.

Tiy Zhun Jie

Working alone can sometimes feel easier. It can be very efficient, I can complete projects in my own time and I can control the whole process. However, there are some good reasons for me to get involved in team work. Whether it's my teacher or a study group I've arranged with

a friend, team activities help me to deepen my knowledge and understanding of issues. Working in a team allows me to look at issues from the perspective of others. When I am asked to discuss a topic and negotiate how to solve it, I am forced to listen to the ideas of others. Their ideas influence my thinking and open up my perspective. My team members are not just your learners, they are also my teachers. The point of teamwork is that socialising significantly improves learning. Not only do I listen to other people's perspectives, but I also compare, contrast and integrate their ideas into my own. Perhaps someone else's point of view will change my mind or show the weaknesses of my own ideas. It is only through contact with others that my views can change.

If I were to do it again, I would be more active and positive in the discussion. Very often, when we are discussing, I am more inclined to listen than to give an opinion and can be more afraid that my suggestions are wrong. Again, I would be more vocal without creating conflict and open to my own shortcomings, as I feel that everyone is essential to a strong team.

Hasan Mohammad Ferdous

The lessons I have learnt from the teamwork in this module, is that teamwork for every group assignment and communication is crucial. Without teamwork we would have jeopardized our group assignment, and this would have had negative consequences on our group and grades. Thanks to teamwork between our members, we utilized everyone's potential to our advantage and were able to balance the workload and meet the assignment criteria, which helped us finish the assignments on time. Upon discussing with each other, we established the necessary viewpoints and understood our tasks, and got the gist of the assignment.

If there was no teamwork involved in our assignment, then we would not have been here right now, finishing our final tasks. Thanks to teamwork we understood each other very well through communication, and this has helped us in overcoming each other's difficulties while working on the assignment. If given the chance, I would've been more vocal in the group and would've been more open to communicate, since considering I'm a shy person this was not the case this time around. However this experience has helped me understand myself better and I will be able to utilize myself through this experience in the future.

Satoaki Ishihara

In order to address this issue, I have decided to thoroughly implement the basic principles of smooth group activity, namely "checking in with each member at least once a week to confirm their progress and feelings" and "asking each member for their opinion at least once at every meeting", regardless of whether or not I am the leader. Although these practices are fundamental for ensuring smooth progress in group activities, they were not well implemented in our recent project. It was only after prompting that everyone gradually began to express their opinions, and in cases where they didn't, myself and two or three others made the majority of the decisions, which was a common occurrence. The other members were mainly in a passive position of simply being assigned tasks. This was far from the ideal situation where everyone takes the initiative to participate equally.

On the other hand, upon closer inspection, I realized that every member was quite capable of producing a well-polished product, and the quality of research and investigation was consistently high across the board. I believe that if we had strengthened our lateral collaboration a little more, we could have completed a more refined project as a group. In

fact, after our presentation, the teacher pointed out that "instead of creating one cohesive product, it feels like each member independently researched and developed their own ideas, which were then patched together." I agreed with this assessment and was once again reminded of the need for improvement. I also realized that it can be difficult for some people to speak up and assert themselves in the face of group dynamics. Therefore, someone with even a little influence should take charge and skillfully incorporate everyone's opinions, where I may have fallen short in leading the group. In the future, if I am tasked with another group project, I will make an effort to interact with each member more as a person.

As a first step, I thought that if we thoroughly implement the basic principles of "checking in with everyone at least once a week to confirm progress and feelings" and "asking for everyone's opinions at least once at every meeting," we could bring the group's lateral coordination to a reasonable level.

Benjamin Khoo Boo Hock

Throughout this group project I learnt a lot about teamwork. I have learnt both what to do and what not to do. As for what I would do differently. The main thing I would do is to be more proactive in communicating with my team. Throughout the project I was reserved, waiting for orders to do work as I was not sure what needed to be done. This meant that for long periods of time I was left doing nothing. As such, next time I would request work from my team or at the very least inform the team that I am free and can provide assistance.

The main thing I would do the same is trust in the work of my teammates. This does not mean I do not check their work, but it does mean that I do not annoy them with meaningless questions about their progress. I can trust that not only can my teammates do their work but they can do their work well. Without trust I could end up annoying my teammates or even slowing down their work as such trust is important

3) Inspire and guide individuals, and to work with others towards completing the manuscript that is of publishable material. (4%) Written Individually in the group project report.

Write how did you encourage and inspire your team member to work toward completing a good quality manuscript.

Aaron Peter

As a student in an IoT project team, encouraging and inspiring team members to work towards completing a good quality manuscript requires a collaborative and supportive approach. One of the most effective ways to motivate team members is to establish a clear understanding of the project's purpose and goals. This can be achieved by regularly communicating the significance of the project and how it fits into the bigger picture. Additionally, providing positive feedback and acknowledging team members' contributions can help boost their confidence and drive to produce quality work.

Another way to encourage and inspire team members is to establish a culture of collaboration and mutual respect. This can be achieved by creating a supportive environment where team

members feel comfortable sharing their ideas and providing feedback to each other. Additionally, regularly checking in with team members to provide support and guidance can help ensure that they are on the right track.

Lastly, setting achievable milestones and deadlines can help keep team members accountable and motivated. Providing clear guidelines and expectations for manuscript quality and organization can also help ensure that the final product meets the desired standard. By following these strategies, I believe that I can effectively encourage and inspire my team members to work towards completing a good quality manuscript that meets or exceeds the project's goals and objectives.

Alexis Woo Zhi Yue

Reflecting on my contributions to the project, I realize that I may not have been as effective as I had hoped in terms of inspiring and encouraging my team members. While I tried to work as diligently as possible on my individual tasks, I recognize that there may have been missed opportunities to offer feedback or suggestions that could have improved the project overall. Looking back, I wish I had taken a more proactive approach and been more supportive of my team members throughout the project.

In retrospect, I understand that being an effective team member isn't just about completing one's own tasks, but also about supporting and inspiring the team. Perhaps if I had been more proactive in sharing my ideas and feedback, or offered to help my colleagues when they were struggling, I could have played a more significant role in ensuring the project's success.

Moving forward, I am committed to developing my leadership skills and finding ways to inspire and encourage my team members. I plan to seek out feedback from my group members to understand how I can better support them and offer suggestions on how we can work together more effectively. I am grateful for the experience and the opportunity to learn from my mistakes, and I am confident that I can apply these lessons in future projects to be a more impactful team member.

Tiy Zhun Jie

To complete the manuscript, we need to combine the information from the first two assignments with the latest information into a formatted document. This document requires us to extract all the content in a more concise way, which is a relatively tedious process. In addition, we need a lot of citation and reference to support our manuscript, which also requires a lot of effort.

Therefore, teamwork becomes very important. We start by dividing up the information needed for the paper among the group, with two or three people responsible for some heavy tasks and one person for others. I myself will help the more confused teammates by explaining what we need to accomplish, and also use what I have already done as an example to explain what we need to do. In addition, I encourage my teammates, listen to their difficulties and help them share the pressure. Of course, my teammates do the same for me and I feel that it is a mutual achievement, working together to achieve the goal.

Hasan Mohammad Ferdous

The main source of encouragement was through hard work and the dedication we saw in ourselves to complete the project. Every one of the group members had the dedication and the strong will to complete the group project and this has been inspiring to all of us to write a good manuscript/report. Since we saw each other do the hard work, this led us to believe in each other's abilities and finally produce a good assignment report to be submitted. And since we divided work with each other, this inspired us to do better so that there were no shortcomings in the report.

The encouragement and inspiration my team members got was through the attitude of not giving up and to finish everything on time. This led us to work in perfect order and finish things before they were due so as to avoid any hassles of last minute submission or other inconveniences that come with it. This is what I believe resulted in us creating a successful manuscript for the group project report on due time.

Satoaki Ishihara

I thoroughly pursued the conceptualization of IoT cloud systems, which was originally my strong suit, in order to create a more precise, rational, and refined system. I was just as particular about this pursuit as anyone else, and I believe that it may have even had a positive influence. Starting with the system design blueprint, we thoroughly researched and condensed the constituent parts, including the software and hardware used, their performance, and specific functions. As a result, several classmates commented that our group's cloud system structure, as well as the explanation of data flow and transitions within the system, were presented in a very easy-to-understand manner. Although we worked as a group, we all had a goal in mind, and by demonstrating our commitment to utilizing everything we had learned throughout the process to achieve the best possible outcome in our presentations and reports, we showed the importance of working hard without cutting corners, and encouraged the group by providing a certain level of inspiration.

Benjamin Khoo Boo Hock

Each individual has their own method of encouraging and inspiring other group members to strive for greater heights. My main method of encouragement tends to be more reactionary. Rather than an inspirational speech I would instead wait for opportunities to provide advice on improvement. For example, if a group member completed their work, I would provide my congratulations before providing advice on possible improvement. If I see a group member struggling I would complement them on the work already completed before seeing if I can assist them in their work. Inspirational speeches are not something tend to do. Instead I rather nudge and advice my group members to do better if possible.