**1.**

**Leaders: Briefly (2-3 paragraphs) describe the characteristics of leaders and the skills they need to motivate team members. When you bring together a team of technical people focused on solving technical problem, what is the potential for technical skills to be a main focus? What skills are required to be an effective team member? Update your notes in OneNote.**

Good leadership requires:

* Charisma: leaders need the ability to influence and direct members towards the path of achieving a unified goal. Leaders who cannot lead are not leaders.
* Cadence: leaders need the ability to read and understand rhythm in the workflow in order to better structure the effort needed from the team to achieve their goals. Work hard, play hard.
* Composition: good leadership needs to have the semblance of structure in order to inspire confidence in anybody under their influence. A leader who does not appear to have everything held together is not going to be a good leader despite any talent he or she may have.

The risk factor of grouping together a group of like-minded people will be that the scope of the work may become too narrow. For a technologically minded team working on a technological project, the risk of the project becoming a focus on technologies instead of the effects on the end user become that much greater.

To become an effective team member, one must first be a good team player. Competence helps but the ability to not only carry your own weight but take on the burdens of another becomes a great asset. This is where learning to diversify your own set of personal talents helps so that you are reasonably equipped to handle most situations that may be thrown at you.

**2.**

**Collaboration: Briefly (2-3 paragraphs) indicate how you managed to consult with your client, stakeholders, users and share the outcomes with your team. What communication strategy did you use?**

**Consultation with the stakeholders involved:**

* Regular communications: establishing a (rough) pattern of when to expect communication raises the chances that communication will be successful and meaningful. Regular updates also helps inspire confidence and highlights any potential issues that may have arisen during the normal course of work.
* Diversifying methods of communication: people have certain preferences for methods of communication whether it be due to practicality or just plain opinion. Limiting communications to one form over another is going to alienate information that may be potentially vital to the success of your project.
* Stimulus and response: any sort of interaction where the audience feels like they have had their time wasted is going to be a failed communication. Keep conversation relevant so that the audience can take something away from their time spent with you and they will reward you in lieu.

Communications between clientele and team members alike was ad-hoc for most part where the team was managing meeting schedules around whatever timeframes were available to each or all members. Team updates happened regularly, given that all members had a common time where they could interact with each other freely. Any message with urgency had to go through different means of communication (email, phone, etc.) which should highlight the importance of being willing enough to adopt new/different technologies for communication.

**3.**

**Norming: Conduct a Google search how to establish a team where you form, storm, norm and perform. Indicate how you recognize each stage of the process and any tips that you might have to help maintain team harmony. Update your notes in OneNote.**

Reference to [Tuckman’s stages of group development.](https://en.wikipedia.org/wiki/Tuckman%27s_stages_of_group_development)

* Form: consolidating and designing the team under leadership as well as providing primary guidance for the task(s) to be focused on. Typically the precursor to any sort of activity on a project. Analogous to the analysis phase of the SDLC.
* Storming: conceptualizing and refining the details of the project as well as team structure and resolving any major disputes with the project. Should be the precursor to any work being done towards the project outcome. Analogous to the planning phase of the SDLC.
* Norming: may refer to normalization, maintaining status-quo and working on iterations of the project to better steer it towards the desired outcome. Generally maintained throughout the entire project’s lifetime. Analogous to the development/testing phase of the SDLC.
* Performing: concurrent leadership so that the optimum direction to the project outcome is kept and maintained in healthy order. As above, this phase is constant throughout the project’s lifetime.

Tips:

* Be flexible. A rigid regime can produce consistent results but nothing is free from outside influence. Life is not a vacuum.
* Offer incentives. The easiest way to make sure your goal is everyone else’s goal is to offer rewards relevant to the individual and relate the rewards to whatever you’re trying to achieve.
* Remove any obstacles you can see. Disruptions to any sort of flow can quickly turn into frustration and impede team output. Anything you can do in a leadership position to make the lives of your members easier will help towards achieving your goals.

**4.**

**Cost: At the beginning of the project were you able to identify costs involved in the develop of a product or service that may never have developed before? Briefly (2-3 paragraphs) document how you estimates times and costs and compare what you did with a Google search of “estimation and cost analysis”**

Referencing [Smartsheet guide to project cost projection](https://www.smartsheet.com/ultimate-guide-project-cost-estimating).

* Direct costs: the immediately assessable costs of any materials or resources to be used on the project. Should be the basis of your estimations and any cost projections you may draw from analysis.
* Indirect costs: the inferred and sometimes unpredictable costs of anything that may happen during the lifetime of the project. Should be the main bulk of what you build cost estimations on.

Time and cost estimations of the SRV project were done using mostly prior experiences (assignment/course work) which resulted in a linear estimate that did not factor in any possible deviations that may happen during the project timeline. In the future, more attention needs to be paid to possible deviations affecting projections (cost or time needed is not a linear gradient) and estimations need to be done in iterations. Estimations should also be plotted around pivot points, or major milestones in the project forecast so multiple revisions along the project timeline would be more ideal.

**5.**

**Communication: You have access to O365 which is built for collaboration. Did you embrace all the tools that enable you to communicate with your team and your client? What was your style? Briefly indicate what should be done before, during and after an interview with a client or stakeholder. Update your notes in OneNote.**

* OneNote: as a collaboration space, perhaps not put to good use. Not all functionality was utilised or required as the team had more convenient alternatives for collaboration available (email, phones, paper, etc.).
* Outlook: was used extensively throughout the project but not used in its entirety. Email communication was a staple but calendar functionality was dropped for most part as key stakeholders did not have preference for this method.
* OneDrive: was not used much as a file sharing/storage platform as a libre alternative was readily available and much more convenient to use.
* O365 document sharing: not used much at all as documentation was mostly worked on in iterations where collaboration was done ad-hoc which using a Git sufficed.

Communications for most part were maintained ad-hoc through means of more permanent forms of communication. Emails were a staple as that allowed each member the freedom to respond whenever it was convenient to, albeit with some issue (client was unable to send emails containing resources vital to project outcome due to technical reasons).

Steps for successful client interaction:

* Come to an agreement on what time and how a meeting should be established. Clearly convey intent and make sure that any relevant information is included (eg. If the previous meeting required some followup).
* When it is time to, conduct the meeting in a professional manner. Be prepared and have everything you may need to present before conducting the meeting. Ask questions to clarify any sort of intent the client may have and make sure to document everything involved in the interaction for future reference.
* After the meeting, internally publish the results of the meeting for ease of reference and to establish a chronicle of prior interactions with the client.

**6.**

**Benefits: Revisit your charter and review the initial objectives of the project. Given that scope may have changed, reflect upon the benefits that your deliverables will bring to your client. Update your notes in OneNote.**

* Added CRUD functionality for the Admin view which would have meant that further expansion of the product would be possible, and that the product being worked on is more modular due to the nature of CRUD functions being key in the role of an administrator.
* Added provisions for authentication (database provided lacked parameters for credentials) to create a more functional product that can be implemented in a wider scope than first indicated.

**7.**

**Policies: Developing a product or service is relatively simple compared to the effort involved in change management where the product or service is adopted by an organization. Identify any policies, values or processes that might have an impact on your project. Update your notes in OneNote.**

* Organisational policies/values: the product being developed must not conflict with pre-existing and established values that the key stakeholders may have due to organisational constraints to avoid unnecessary rejection.
* Personal policies/values: either from the developmental side or the receiving end, personal values and opinions will play a role in what shape a product should take on. It would be difficult to create a product that will please everyone but there should be considerable effort put into creating a product that would not unnecessarily restrict any potential market share.
* Governance/hierarchies: opinions and conflicts often and do happen so convention would dictate that the opinion from the person least likely to be challenged or question would be the most practical to adopt. Governance dictates who should have the final say in what happens to a product during development.

**8.**

**Peer Review: Use the peer review form as a ‘template’ to make a Microsoft Form where you ask each team member to review your performance and the performance of each other. Summarise the feedback in OneNote.**

-To do-

**9.**

**Performance: Briefly (2-3 paragraphs) document the process you used to monitor your own work performance and the performance of your team that was established to develop deliverables aligned to the strategic direction of your client.**

**How did you ensure quality and progress? Update your notes in OneNote.**

* Regular team meetings: Team members had a common time (Monday) to catch up and communicate any grievances effectively (in person). Peer review gave all members a good sense of what stage the project is at and each member’s performance.
* Regular client interactions: client had frequent and ample opportunity to observe the development of the project which gave him ample time to air grievances about development methods and/or strategies. Client feedback on the developing product was obtained on every instance of interaction had between client and developer, in which the feedback was reflected in the continual development of the product.
* Project plans, deadlines and scope: documentation made before the commencement of development served as a standard to abide to during the process of development. The planning documentation was constantly referred to during the steps made in developing the product to ensure the resulting product adhered to any criteria set by the project scope, that the product fulfilled the scope provided and that there was an attempt to adhere to deadlines set by the project plan.

**10.**

**Budget: Briefly (2-3 paragraphs) document the processes used to establish the budget for the project and how you would cope if you needed to load the budget at strategic times to purchase goods or services. Update your notes in OneNote.**

* Understanding the business case: deep analysis of the business case being presented is needed to provide more accurate estimates in terms of budget and expenditure forecasts. Getting to know what kind of goal your client is trying to achieve may also highlight any reason for concerns that are not immediately evident at first inspection which can result in more resources needed and unexpected project costs.
* Referencing case studies: previously established estimates made for situations like your own will help in providing more realistic expectations when it comes to your own estimates.
* Referencing seniority/those with experience: nobody on the development team had any prior experience in project budgeting for a large software project but there were senior members who had opinions based on previous experience. Taking on the experience of others who have been in a situation like your own helps to build a more practical estimate.

The budget estimates for the SRV project were done mostly during the early phase of the project and were left alone thereafter, meaning that the estimates would not be current and are not usable if they had to be referenced later on in the project’s lifetime which would have been a critical failure on our part. In the future, estimates need to be kept current through regular iterations and that can only be one with thorough planning from the very beginning.

**11.**

**Methodology: List the range of project management methodologies that might be relevant for your project. Provide links to relevant sites that point to important information. Update your notes in OneNote.**

[Project management methodologies made simple](https://thedigitalprojectmanager.com/project-management-methodologies-made-simple/)

[Software Development Process](https://en.wikipedia.org/wiki/Software_development_process)

* Waterfall: rigid project structure that has steps done in sequence. Analysis -> Planning -> Development -> Deployment/Maintenance
* Agile: flexible approach to software development that follows rapid application development(RAD) principles and work done in iterations until project conclusion. Analysis -> Planning -> Development -> Deployment -> Maintenance/repeat
* Scrum: works using Agile methodology but features regular iterations during development called “sprints”. Sprints also feature meetings per sprint so team communications are constant and frequent.
* Kanban: another method following RAD philosophy, Kanban uses a physical manifestation of the product’s backlog in the form of a board separated into categories of To Do/Doing/Done.
* Lean: a RAD method that deemphasises the need for documentation so that development can start as early as possible resulting in shorter project durations.

**12.**

**Analysis: Revisit Qu 3 from Planning phase were you gathered information about the system. Provide a link to the approach that you used and any relevant templates. Update your notes in OneNote.**

[Lean Software Development](https://en.wikipedia.org/wiki/Lean_software_development)

Information and available documentation were quickly assessed at first to begin development ASAP to gather feedback from key stakeholders which would have resulted in a more than functional product. Thorough documentation happened after development during iterations.

**13.**

**Team Roles: Briefly (2-3 paragraphs) describe how you managed to adopt a role as XXXX in your team and how work was originally assigned. Did you have the skill or did you need to learn the skills? Where did you gain inspiration from?**

**If you were to do another project with a new team that you didn’t know their skill, how would you advertise the skill set that you seek? Update your notes in OneNote.**

Ngo: Documentation lead

Previous work and experience as a ghost writer for contracts helped a lot in forming a lot of the formal agreements needed in most of the early documents for the project commencement. Having a penchant for analysis and finer details helped with forming referential documentation.

Alex: Project management

Previous work as a sales representative and customer service helped in managing timeframes and picking up slack where there was some. Great communicator. Diverse skillset meant that any need for extra work could be fulfilled.

Gonzalo: Development lead

Previous work as a software developer helped in rapid development of the product using modern technologies to make the development process more efficient. Experience in prior scenarios similar to this one helped in forming more practical expectations of the outcome and helped to set a hard limit to the scope of what can be done.

Team roles were designated according to prior experience. Team NAG was fortunate enough to be made mostly of members with enough experience to add positive contributions towards the project outcome. Inspiration was mostly drawn from life experience and opinions of seniority working with the team.

When working in an environment of uncertainty, the first step should always be a quick observation for tell-tale signs of things that you are looking for and/or warnings of things that you need to avoid. To make things more efficient, you can put in the effort to advertise what you’re looking for or set up misnomers to see what will take the bait. When you have identified something that could lead to a positive outcome, approach in a swift and concise manner without reservations to probe for more information. A clear and honest approach tends to lead to faster outcomes.

**14.**

**Modelling: IT projects have a history of being expensive and the CHAOS report indicates the vast majority of IT projects fail or are challenged in terms of scope, time or cost. Browse information on Agile and compared it with PMBOK to determine how you will ensure that the solution that you develop for your client will not be one of those failed projects the CHAOS report refers to. What is your preferred framework? Did you follow the entire framework or just the bits that you could manage?**

Update your notes in OneNote along with your single best URL for guidance and inspiration.

[Single best source of guidance and inspiration in the 21st century.](https://www.google.com)

[Second best source of guidance and inspiration in the 21st century.](https://lmgtfy.com/?q=how+to+use+google+more+effectively)

* Agile Vs. Waterfall: projects are carried out and performed in iterations which provides more opportunity for a change in direction, meaning that the stakeholders concerns can be made more relevant to the development of the product during the developmental phase.
* This gives the product more opportunity to change form according to the stakeholders’ wishes.
* One thing both methodologies does right is perform the thorough analysis and planning before the actioned part of the project. This serves to reduce most waste during the lifetime of a project and allows for more smoother progression for the execution of the project.

Agile is an industry standard for software development and most Agile-based methodologies are serviceable for any sort of software development project. For smaller scale amateur projects, an approach like Lean is more preferential as history, while it is a useful tool to have, is not as important as the experiences for someone looking to learn about more practical metrics like performance and outcomes. The entire theory behind the methodology was not followed and the project was mostly done ad-lib in accordance to the guidelines suggested in the Lean philosophy. This was partially due to a lack of experience and partially due to a lack of time.