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4. MUHAMMAD WAFFI QAYYUM BIN DIN

5. MALEK AYMAN MOHAMAD DAHY

Video Link :

<https://youtu.be/d9qR8BR5Gfo>

1.0 INTRODUCTION

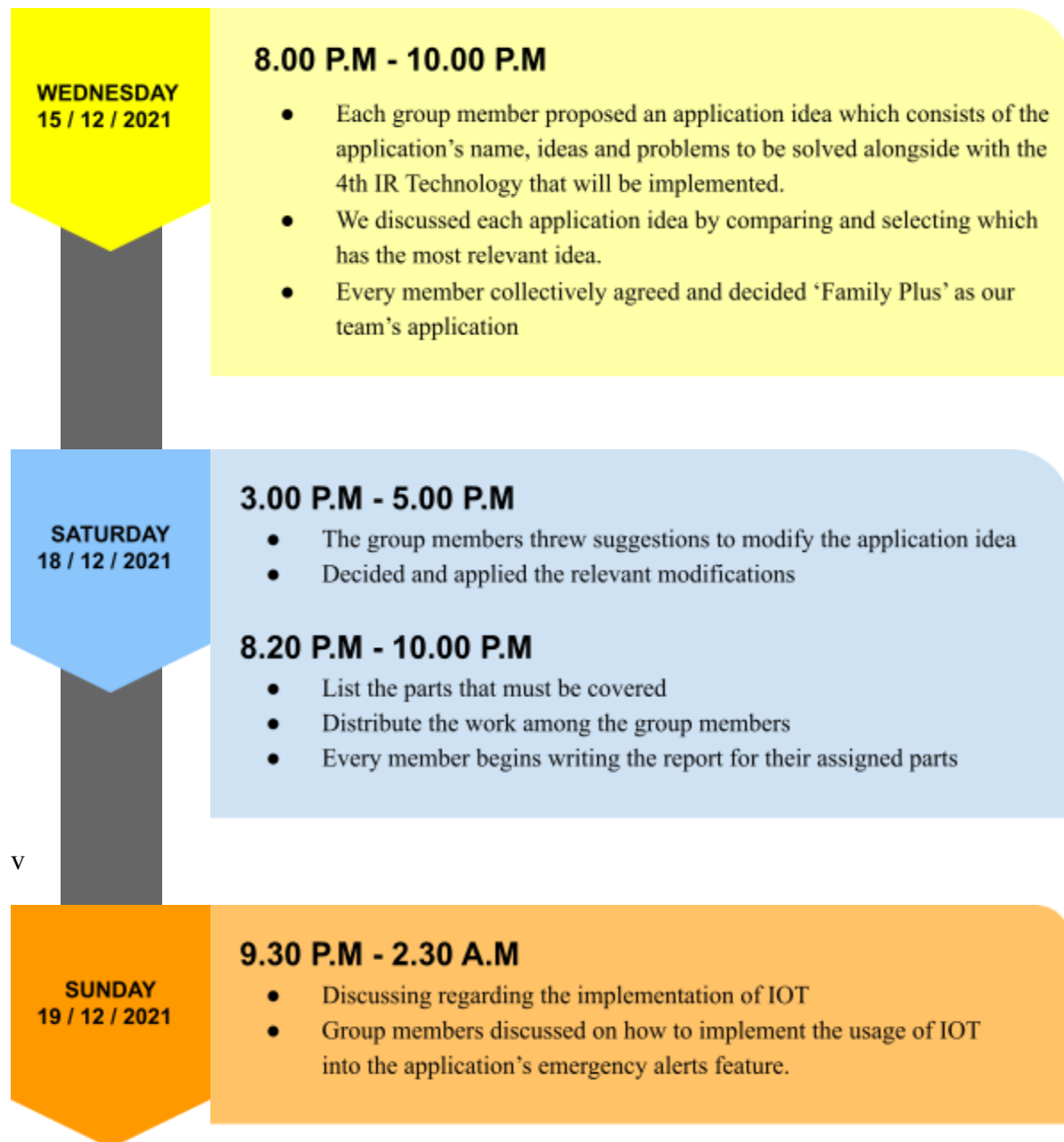
"Family Plus" is an application designed to help families become more organised. In 2021, the customary method of keeping track of family events, such as using calendars, keeping a ledger, or posting sticky notes on the refrigerator as alerts and reminders, would be nearly obsolete. As a result, most families rely on random chatting apps like WhatsApp and Telegram to connect and discuss issues among themselves. Several problems arise among families while using platforms like these, such as not knowing and leaving out someone's schedule, running out of money due to the lack of budget tracking, and also accidentally ignoring important announcements or emergency updates.

As a result, "Family Plus" was developed to help parents deal with all of these problems. From one app, parents will be able to manage their schedules, check spending, make announcements, and receive emergency warnings. Family members can use Google Calendar to create and submit their own personal schedules. Then, based on each family member's schedule that has been uploaded, an automatic family calendar will be constructed, allowing everyone to see each other's schedule. Family Plus also includes a budget tracker. It allows parents to choose whether or not to reveal the family budget to all family members. Each child can enter their expenditure into the app, which will be accessible to their parents and will aid in distributing monthly expenses.

This app may also be used to send out announcements, allowing parents to control who has access to this feature. As a priority notice, the announcements will be sent to everyone's cell phone. This tool can also be used by parents to publish To-Do lists. In Family Plus, you can also get emergency alerts. Everyone will receive a prioritised notification and their phone will ring if the emergency alert feature is activated.

2.0 DETAILED STEP AND DESCRIPTION PROJECT'S PROGRESS IN

We keep a log journal to record our journey, progress, and steps. The figure below depicts the detailed steps and progress.





TUESDAY
25 / 1 / 2022

8.50 A.M - 3.10 P.M

- Discuss about the project's reflection
- Combined everyone's reflections into a single pdf

10.30 P.M - 11.35 P.M

- Discuss the project flow diagram

WEDNESDAY
26 / 2 / 2022

10.20 P.M - 12.30 A.M

- Discuss about the project's presentation and journey videos via Google meet
- We divided the task for each member

THURSDAY
27 / 2 / 2022

12.00 P.M - 2.30 P.M

- Compile everyone's part into a single video
- Compile everyone's part into a single pdf for project report
- Recheck the project report

6.00 P.M - 6.20 P.M

- Submit the project report and presentation video on E-learning

3.0 DETAILED DESCRIPTION INCLUDING PROBLEMS, SOLUTIONS AND TEAM WORKING

3.1 PROBLEM STATEMENTS

The typical method of family organisation, which involves marking calendars, keeping an accounting book, or pasting sticky notes on the refrigerator as notifications and reminders, will be nearly obsolete in 2021. As a result, most families turn to using random apps designed just for messaging, such as WhatsApp and Telegram, to communicate and discuss issues among themselves. When families use platforms like these, several issues arise such as not knowing and leaving out someone's schedule, running out of money due to a lack of budget management, and accidentally neglecting crucial announcements or emergency updates.

The first problem raised is not knowing and failing to include a family member's schedule. Because the old method of keeping a 'family calendar' and noting everyone's key dates on it is very rarely used in most modern families, it is now typical for families to be unaware of the locations of others. There are two major difficulties here. To begin with, it is exceedingly unsafe for someone to go out without informing a trusted individual of their location. This is because if something were to happen to that individual, no one would be able to detect or determine their whereabouts quickly enough to provide aid. Secondly, unexpected plans may be made. A family may make crucial plans on an important day because they are unaware of or forget about someone's schedule. For example, the parents may be unaware that their child has an important test scheduled on the day of a planned trip. This problem occurs commonly among families simply because they are unaware of each other's schedules.

The second problem stated is that families are running out of money due to lack of budget tracking. The old method of tracking budgets was to physically write them down in accounting books. This method of budget tracking is time-consuming, difficult, and prone to mistakes, which is why many modern families have abandoned it onto their households. Due to a lack of budgeting, the family may run out of money without noticing it. For example, because the parents did not pay close attention to the household budget, the children may not have enough money to spend during college. This problem arises commonly among families simply because they do not keep track and pay close attention to their budget.

The third problem is neglecting crucial announcements or emergency updates by mistake. The traditional method is either to attach sticky notes on the refrigerator or to personally send a text message and call every single family member, which is inconvenient and time consuming. This might lead to delayed communication among family members. For instance, if someone is in a serious emergency, they will have to scroll their contact list and search for the names of the people they want to text and call, which would be time consuming. Not to mention, even text messages might get accidentally ignored due to a lot of other incoming messages. This problem emerges frequently among families, simply because their text messages and phone calls may be overlooked by mistake during an important announcement or emergency.

3.2 PROPOSED SOLUTIONS

All of these issues can be solved with Family Plus. Family plus is a fantastic software for families that allows them to manage their plans, track their finances, make announcements, and send out emergency alerts all in one place. It will undoubtedly become any family's new best friend, and it will eliminate the need to use other ineffective apps, as Family Plus is specifically designed for families of all sizes.

The first issue, not knowing and leaving out a family member's schedule, is solved by Family Plus. Users of Family Plus will be able to upload their own schedules from Google Calendar or even design their own schedules within the app. A family calendar will be created based on everyone's input, allowing everything to be synchronised in one place. This will allow families to plan their forthcoming vacations and holidays more successfully, without having to worry about unintentionally leaving someone behind.

The second issue, running out of money due to a lack of budgeting, is likewise tackled with Family Plus. To help with this, Family Plus features a budget tracker feature. Parents can opt to keep their budget hidden or share it with their children. Parents can also set aside money for each child, and each youngster can enter their own spending into the app, which the parents can track. Everything will be calculated automatically in the end. This will assist a family in managing their budget in the most efficient, effective, and accurate manner possible. It will also be an excellent approach to teach kids how to manage a budget from a young age, as the software will allow them to directly participate in budget tweaking by inputting their costs.

The third issue, which is mistakenly disregarding crucial announcements or emergency updates, is likewise handled by Family Plus. Parents and anybody else they choose can make an announcement in a flash with Family Plus. Announcements will be delivered as a priority notification to everyone's phone, or to a selected group of people, such as siblings. Parents can also use this feature to post to-do lists. Emergency warnings can also be delivered via Family Plus. Everyone in the family will receive a priority notification and their phone will ring if someone places an emergency alert. This will allow everyone to be contacted instantly in the event of an emergency. With this feature, no one will ever miss an important statement or be unaware of an emergency situation.

3.2 TEAM WORKING

PROJECT PART 1	MOATAZ • Architecture - 5.1 Front End - 5.2 Backend - 5.3 Delivery System - 5.4 Deployment model
	ABDULLAH • 4th IR technology and their uses
	EIKIESHA • Problem statement • Proposed solution
	WAFFI • Project overview • Possible Clients
	MALEK • Reflection

PROJECT
PART 2

MOATAZ

- Project Mock-up
- Reflection

ABDULLAH

- AWS Architecture Diagram
- Reflection

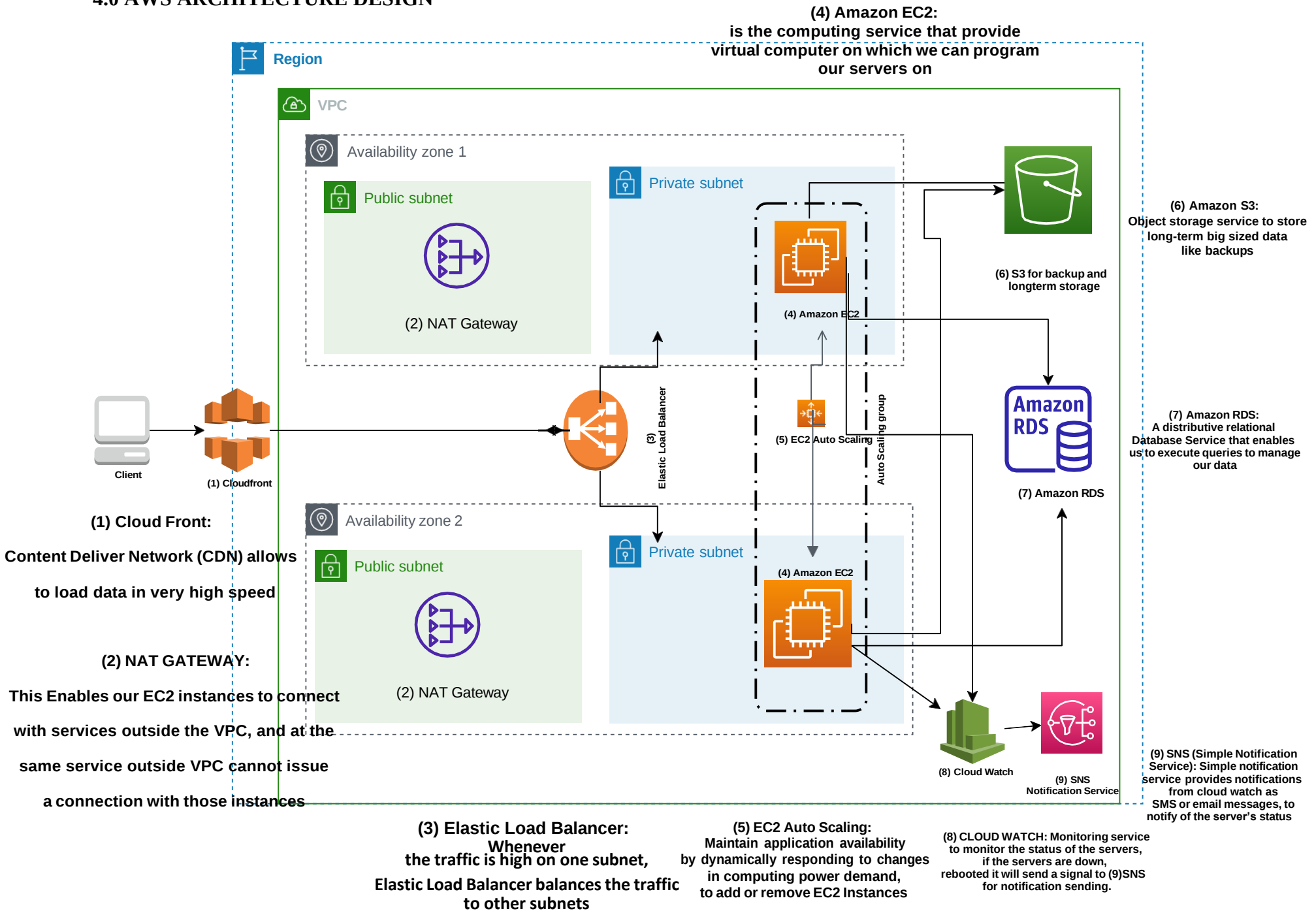
MALEK

- Business process flow diagram and description

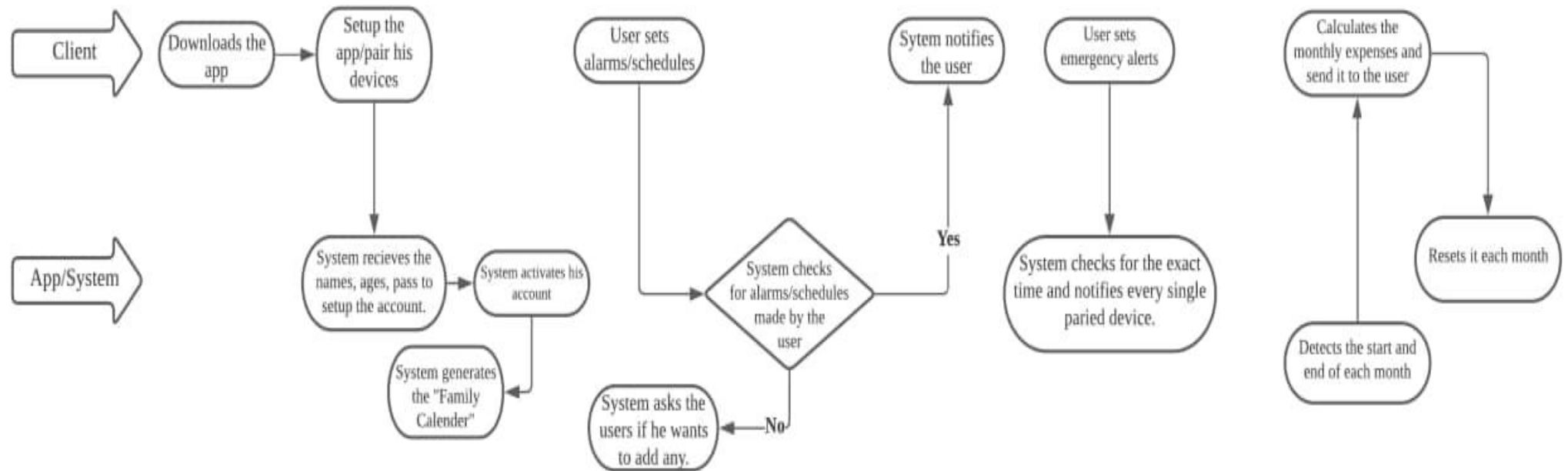
WAFFI & EIKISHA

- Introduction
- Detailed step and description
- Detailed description including problems, solutions & team working

4.0 AWS ARCHITECTURE DESIGN



5.0 BUSINESS FLOW DIAGRAM



6.0 FAMILY PLUS MOCK-UPS



7.0 REFLECTION

When it comes to how we feel about this project, at first it was interesting when we were planning it and deciding the application features and designing the user experience, however all this planning was just scratching the top of the surface, when we came to seriously planning and defining the application it was mainly divided into two parts, Front End and Back End. For the Front-End, we haven't learnt anything about UI Design as we are still in our first semester so learning how to use prototyping software and the basic design principles of User Interface design was a bit challenging, we had to teach ourselves this skill, and I guess there will be a lot like this in the future, I heard from friends that the key to succeeding in Computer Science is self-learning.

With regards to the Back end and designing the AWS Architecture Diagram, we found that the knowledge we learnt from the AWS academy course was very useful, we were able to choose the appropriate services. We also were able to put these services in a region and in this chosen region we spanned multiple availability zones to maximize efficiency. While even though the course did talk about Architecture, it only explained about the pillars and factors when deciding your back-end architecture, but not designing your architecture, so we had to find ourselves again learning how to design an architecture with a web software called draw.io. With all this being said, this project had some of its bright aspects such as implementing the knowledge we got taught during the whole semester in one complete project. This does not only relate with the AWS course but rather all the industrial talks and the individual topics which we had been writing about in the semester. Moreover, learning new things and despite considering it a tough thing, it also has its advantages as it also got us new experiences improving our skills.

My team's motivation for completing this project was to assist our clients in resolving their issues. As we interviewed the clients, we discovered that the fundamental issue was that parents' failure to manage their families had a negative impact on not just their own lives, but also the lives of their children. For example, their children will not have enough expenses for college. As a result, we believe that applications such as "Family Plus" should be developed to assist and train parents in properly managing and organising their families. At the same time, we make use of this opportunity to gain more knowledge and experience in order to improve ourselves. This project has allowed my team to strengthen our problem-solving skills as we investigate the problems from different perspectives, pinpoint the cause, and generate

potential solutions to each problem. We were also able to improve our communication skills when interviewing our clients, and the most crucial aspect of the project was that we were trained and exposed on how to operate effectively as a team, which also the key to make this project a success.