



# ALT F4 Software Solutions Co Ltd

## PROJECT DETAILS

**Type of Project:** Mobile Application Development

**Project Name:** Instant MMLS Notifications

**Development Platform:** Android Studio

**Project Management Software:** Github.com, Git

### **Project Members Job Scope:**

#### **Chai Yee Ting (Project Manager):**

Task:

- General project administration.
- Progress and resource monitoring.
- Overseeing the production and development of project deliverables.
- Acquiring support and advice to further enhance project output.
- Host and conduct meetings to ensure collaboration between members.

#### **Liyana Safinaz binti Abdul Kadir (Project Planner):**

Task:

- General planning for the timeline of the project.
- Estimate resources required by the project and the members
- Joint management duties along with the Project Manager
- Identify specific activities that is required to be performed during the project.
- Drafting of the software development model that the project shall utilize.



## **ALT F4 Software Solutions Co Ltd**

### **Haziq Imran bin Hanip (Sales Engineer):**

#### **Task:**

- Analyze and identify business requirements.
- Perform estimates on project costs by studying the requirements, related customer documents as well as software requirements.
- Determine improvable factors by performing analysis on the cost-benefit ratios
- Obtain acceptance by means of presentation or demonstrating to the end-users
- Prepare sales report by collecting and processing the information acquired from the project.

### **Hor Sui Lyn (Product Owner):**

#### **Task:**

- Analyze market trends and provide suggestion to the team.
- Communicate with the end users of the production.
- Maintain communication with the stakeholders of the product.
- Provide insightful feedback to the project team in terms of the work and the process of the work
- Aiding the team to continuously improve their methods.

### **Ahmad Nabil bin Nasrudin (Software Developer):**

#### **Task:**

- Designing the flowchart and the design block diagrams of the product
- Implementation of the software architecture in code set forth by the project members.
- Provide insights regarding the technicalities of the implementation of the ideas onto code
- Combining the elements and modules to perform testing and verification.
- Ensure the adaptability and flexibility of the program.



## ALT F4 Software Solutions Co Ltd

### Chia Jason (Software Developer):

#### Task:

- Ensuring the overall quality of the project is satisfied through extensive testing and feedback.
- Develop methods and functions to aid the development process
- Maintain and produce quality software.
- Maintain excellent version control of software as well as to provide comprehensive documentation to the software.
- Provide feedback on the process and product of the project through auditing.



## ALT F4 Software Solutions Co Ltd

### Timeline:

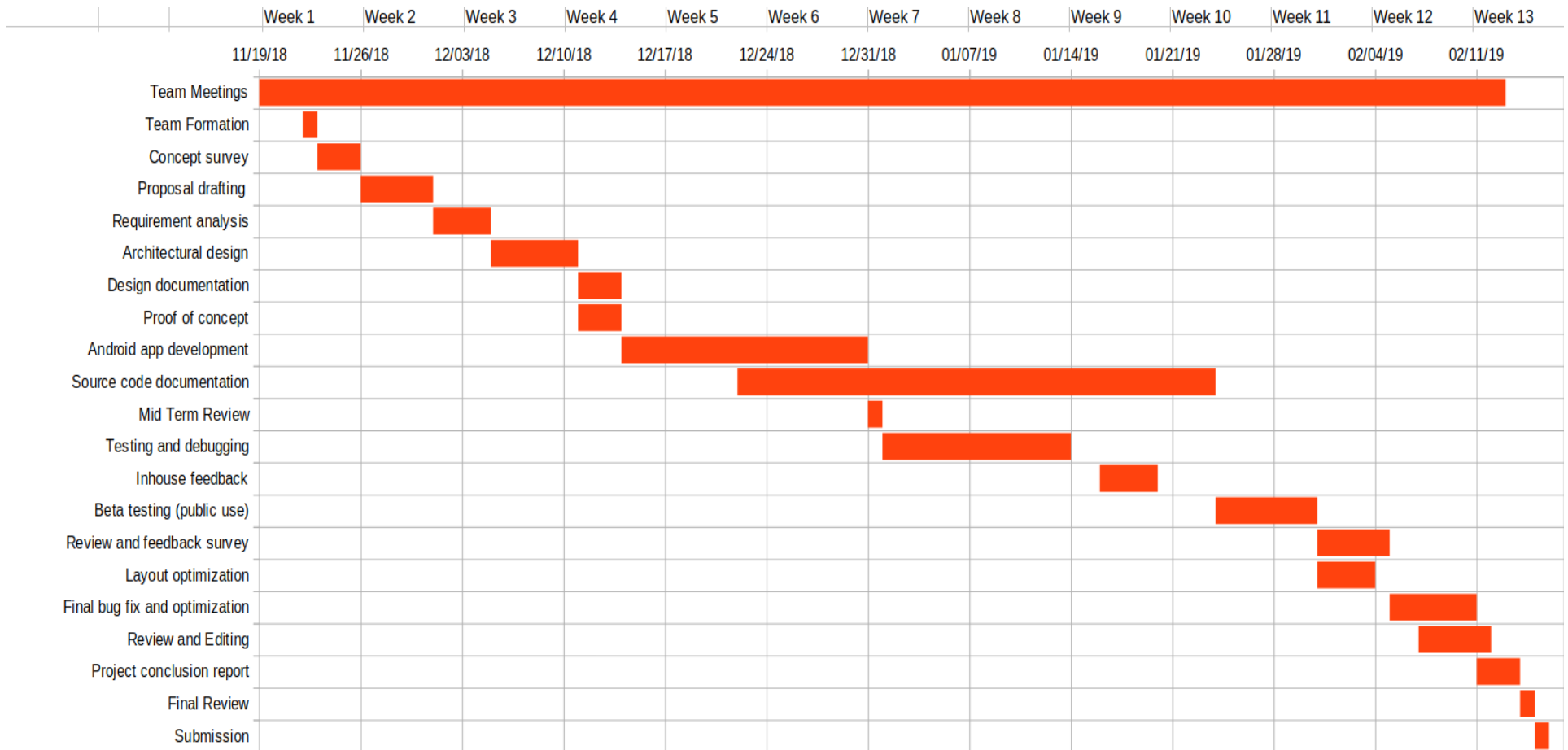


Figure 1.0 Gantt Chart for the project timeline. (Created using LibreOffice Calc)



## ALT F4 Software Solutions Co Ltd

### Cost Estimation:

Calculated using 2 point estimation model.

Activity	Optimistic(RM)	Pessimistic(RM)	Estimation(RM)
Salaries of Software Development Team	4000	7000	5500
Standard GUI (Freelance Designer)	50	150	100
Engagement and Marketing	100	200	150
Android Developer License	100	120	110
Hardware Components	300	500	400
Quality Assurance(QA)	50	150	100
Additional Cost(Utilities,Office Rental,Other software license)	1750	2250	2000
Total	6350	10370	8360

Figure 1.1 Project Cost estimation metrics.



## BUSINESS CASE

### Introduction:

Multimedia Learning System (MMLS) is Multimedia University's (MMU) online learning portal, functioning as an online bulletin board for students to view course notes, assignments and announcements. Posting of updates on MMLS are a common practice among lecturers, as it is common for students to monitor MMLS for updates. Although MMLS is a convenient way to access course materials and view updates, the lack of notification system meant that users are to periodically monitor MMLS for new content and updates.

With MMU students being the core target audience, A survey of sample size 38 is conducted among them. It was shown that 68.4% of students checked MMLS at least once a day with 31.6% checking it multiple times a day. This can be attributed to students checking for class cancellation or change of venue, replacement classes, lab sheets, test results and other updates.

### How often do you check MMLS using web browser?

38 responses

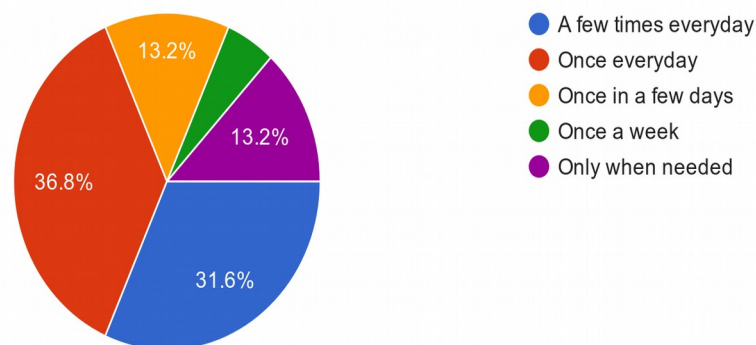


Figure 2.1

MMLS usage on web browsers



## ALT F4 Software Solutions Co Ltd

### Solution:

Notifications provide convenience to users by providing real time updates when something new is released. The MMLS main page, where all the announcements can be viewed, retains all the updates made, even though they may no longer be useful. The average student has 4 classes in a trimester, and with multiple announcements in a week, there exist a possibility to miss an announcement as weeks go by and the main page becomes cluttered. A push notification is sent to the user when there is a new announcement or new content available - depending on the user's preferences.

The following pie chart from the study shows that **86.8%** of the surveyed individuals find the existence of a mobile application which listens to MMLS posts and notify them whenever and wherever to be useful. (Refer to appendix 1 for extra statistics on the survey)

If there is a mobile application which will generate notifications whenever there is an update on your MMLS account.....

38 responses

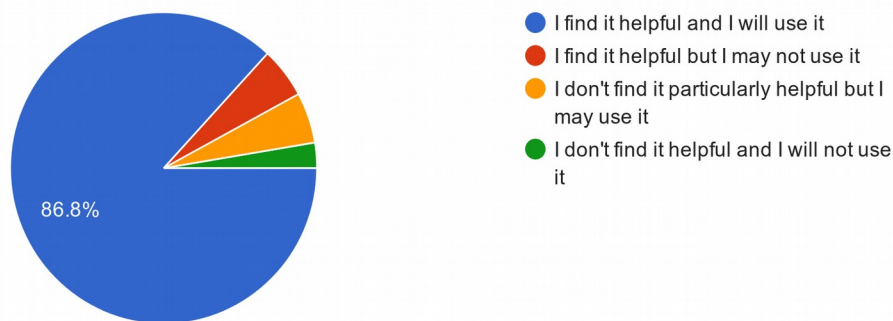


Figure 2.2

Surveyed Output on the market demand for the proposed application



## ALT F4 Software Solutions Co Ltd

### Existing Solutions :

Currently there is no system which provides real time MMLS updates. “MMU Online”, the official mobile app created by MMU, provides access to services such as MMU Portal, Bulletin Board, MMLS and Student Service Center but it **does not** provide a notification service. The application is also reported to request for user credentials periodically to stay authenticated with the system. In fact, only 10.5% of the surveyed individuals responded that they will use the app frequently.

#### Are you using the MMU Mobile application to check MMLS?

38 responses

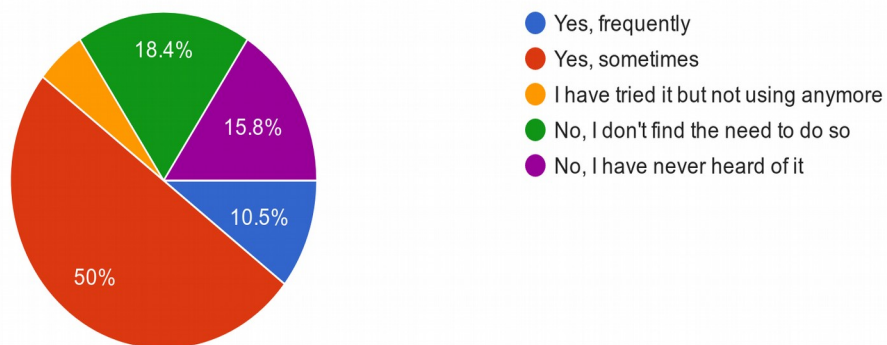


Figure 2.3

Surveyed Output on the feedback for existing applications





## ALT F4 Software Solutions Co Ltd

### Functionality and Features :

1. The application shall access onto MMLS and periodically (5 to 30 minutes) checks for updates and sends a push notification when it detects there is new data. The push notification has two options, one to dismiss and another to view the entire message. If the user chooses to view the message, the user's default browser will be used to display the HTML content retrieved and detected as "latest updates".
2. Additionally, The option to 'share' the notification onto a social media platform such as WhatsApp or Facebook to alert more of his or her friends who may not have the App installed but the user is aware to be in the same class is made available to users of the application.
3. Due to limited connectivity concerns, Operating in the 'offline' mode which allows user to view posts that were previously loaded onto their phone is also possible. MMLS post can be checked regularly even where there isn't any internet connection available to the user.
4. Ultimately, the implementation of an organizing framework such as a search bar which in turn allow users to freely sort and search for the post that they are interested to view again. Most student may need to recheck a single post multiple times and this functionality serves to handle that demand without the navigating through MMLS or the MMLS app.
5. Usability and simplicity are the main focus of the project, a simple but efficient app has far more value compared to a complicated one if utilized correctly.



## ALT F4 Software Solutions Co Ltd

### SWOT (Strength, Weakness, Opportunities and Threats):

- Strengths: Simple and clean, easy to use application that can be used by many to improve and enhance their MMLS experience.
- Weaknesses: Only available on the Android Platform, constant checking requires decent internet connection and may take a toll for users on mobile data.
- Opportunities: As a model for a campus wide notification system (Amber Alert, Notify Electricity Shutdowns or Closure of Venues etc.)
- Threats: User credential is stored locally on the smart phone to ease access however is a security threat. Further work is required on encryption to secure the password.

### Recommendations:

As such, the production of the described application is recommended to tackle the missing link in the current market, to provide a simple and clean method to allow users of MMLS to stay up to date and notified whenever and wherever there is any new postings on the learning system. The application is highly recommended as it has the potential to substantially impact the community in Multimedia University.

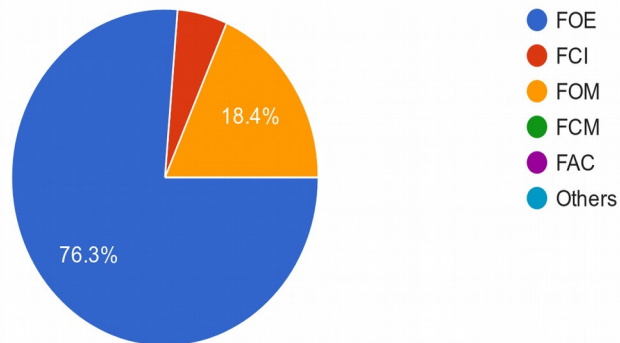


# ALT F4 Software Solutions Co Ltd

## Appendix 1

Which faculty are you from?

38 responses



Which year are you in?

38 responses

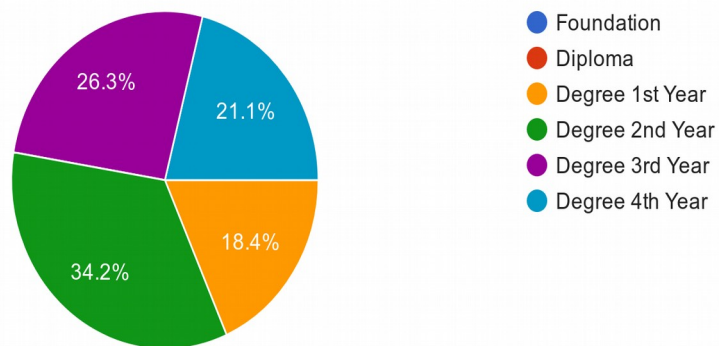


Figure A1 & A2

A1 : Demographics of surveyed audience (Faculty)

A2 : Demographics of surveyed audience (Year of study)