



**Proposal  
For  
Second Year Project  
Bachelor of Science in Information Technology**

**Note-taking App**

**Submitted by  
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Gyalpozhing College of Information Technology**

## **Read carefully before filling the form.**

1. Please do not alter the layout of the application form. Information must be filled in the spaces provided, under set format.
2. Guidance notes in various fields should not be deleted.
3. Required information should be duly filled in the specified fields.
4. Required heads/fields which are not relevant to the project should be marked **N/A** (Not Applicable) or left blank and should not be deleted.

## **Guidelines and Forms**

### **Submission Procedure**

Duly filled proposal forms completed in all respects should be submitted in form of soft copy and a hard copy to project guide and project coordinator. On receipt of the applications the proposals will be evaluated by reviewer panel and proposal would then be defended by student groups. The project group may need to revise the proposal in light of the evaluator's recommendations.

### **For further information, please contact:**

Project Coordinator

Jigme Wangmo

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Tshering Lhamo

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## Application for Final Year Project

### 1. Project Identification

<b>A. Reference Number:</b>	
(for office use only)	
<b>B. Project Title: Note-Taking App</b>	
<b>C. Project Internal Guide:</b>	
Name:	NA
Designation:	
Organization:	
Mobile # :	Tel. # :
Email:	
<b>C1. Project External Guide:</b>	
Name:	NA
Designation:	
Organization:	
Mobile # :	Tel. # :
Email:	
<b>C2. Student Group Lead:</b>	
Name:	Tshering Penjor
Roll No:	12190097
Department:	BscIT
Mobile # :	17749476 Tel. # :
Email:	12190097.gcit@rub.edu.bt



**D. Organizations Involved in the Project:**

*(Please identify all affiliated organizations collaborating in the project, and describe their role/contribution to the project.)*

**D1. Industrial Organizations:**

#	Organization Name	Role / Contribution
	NA	

**D2. Academic Organizations:**

#	Organization Name	Role / Contribution

**D3. Funding Organizations:**

#	Organization Name	Role / Contribution
	NA	

**E. Key Words:**

*(Please provide a maximum of 5 key words that describe the project. The key words will be incorporated in our database.)*

- Android application
- Note-taking
- User login and Sign-up
- Record
- Secure

**F. Research and Development Theme:**

Most educators consider note-taking a critical component of formal classroom learning. Advancements in technology such as tablet computers, mobile applications, and recorded teachers are altering classroom dynamics and affecting the way students compose and review class notes. These tools may improve a student's ability to take notes, but they also may hinder learning. In an era of dynamic technology developments, it is important for educators to routinely examine and evaluate influences on formal and informal learning environments.

**G. Project Status:**

(Please mark ☒)

New      Modification to previous Project

☒ Extension of existing project



**H. Project Duration:**

Expected Starting Date: 3 March 2021

Planned Duration in  
months: 6 Month

**2. Scope, Introduction and Background of the Project****A. Scope of the Project:****User Scope:**

School and College (BHUTAN)

The android app is based on the student usage where it will help students to keep note of their Teachers, assignment dates (classwork and homework) and important events .

**System Scope:****1. User Registration**

User can register as student or lecturer to view post, like, comment, share and add to favorite in a discussion forum.

**2. Note-taking plate-form interface**

This app will allow you to write a note in a plan page and it will allow you to edit the exciting note.

**3. Notification**

This app will provide notification for new post/doubt in discussion forum which can be turned off.

**4. Feedback**

Users can provide feedback regarding the application for further improvement of the app.

**5. About**

This section of the app will provide information about the app and other related app policies.

**6. Help**

This app will allow users or proprietors to access the application manual and

other related FAQs.

**B. Introduction (Project Background and Literature Review, Current State of the Art):****Background**

Note-taking is the practice of recording information from different source and platform. By taking notes the writer records the essence of the information, feeling and freeing their mind from having to recall everything. Note-taking has been an important part of human history and scientific development. The Ancient- Greeks developed hypoxaemia, personal records on important subjects. During the 15<sup>th</sup> century, scholars devised techniques to address extensive and selective reading and wrote manuals on how to make notes efficiently. These procedures were aimed not only at students, as is the case on university web page devoted to advice on note taking, but also to whoever wanted to read efficiently. Although note taking was mainly seen as a reading tool, it was also said to help individual to remember and process what they saw or heard during their lifetime.

However, if subject of the notes has changed the reason put forward as to why it is beneficial to take notes have remained essentially the same. The Stanford university website is in line with what scholars during the 15<sup>th</sup> century advised on this matter. Taking notes is said to help note-taking and note-takers to better remember what they write by focusing on what they hear or read. Note-taking also boned their analytic skills, both to selecting and synthesizing the key elements of the lecture or the book.

Here are few methods of Note-Taking:

- The Cornell Method
- The List Method
- The Outline Method
- The Concept Map Method

**Introduction**

Note-taking which is the practice of writing down pieces of information in a systematic way. Note-taking is an important aspect of formal classroom learning, and students who take more course lecture notes in general are higher achievers. According to Ryder Carroll “The more content you try to capture during a lecture or a meeting, the less you're thinking about what's being said. You burn through most of your attention parroting the source.”[2] Note-taking is a personalized task, and when individual differences with regard to note-taking ability also are considered, interpretation of the literature becomes even more complex. In addition to these historically studied variables, emerging factors also affect student note-taking. The introduction of tablet computers, note-taking applications (apps), and other education technology in the classroom are altering the way students take notes and consume and process information during class. These technological advances add to the perplexity of how to best guide faculty members and students about note-taking.

Effective note-taking helps students retain what they learned in class so that they can use the material to study and build their knowledge and tackle more complex concepts later on. In fact, research indicates that there's a 34 percent chance that students will remember key information if it's present in their notes but only a 5 percent chance if it's not. It doesn't matter whether you prefer to write brief summaries or make visual guides and diagrams in your notes. The important thing is to find a note-taking strategy that works for you.

The introduction of mobile computing devices in classrooms ushered in a new set of note taking issues. Speed, legibility, and search ability are three positive attributes of digital note taking. Because of these advantages, some students may prefer digital note-taking over traditional handwritten notes. The digital way of note taking has not only ease the effort required to take the notes but also made it a secure and more dynamic than the usual traditional way of maintaining the notes. With the creation of mobile application, one can easily organize, make important notification and set a reminder using the mobile application which we are going to develop. Some of the benefits of digitally maintaining notes are the notes you store will stay organized and since if you note it digitally you won't require to write it on the paper, which will help contributing a good role in preserving the environment.

## **Literature Review:**

### **An App for High-Productivity Note Taking in Meetings**

#### **Problem:**

Throughout this journey, an academic is typically faced with multiple, consecutive meetings, day after day, week after week. Having little to no time for lunch breaks let alone bathroom breaks. This journey is typically documented through the use of physical notes with the never failing pen and paper, categorized into specific sections, within specific folders, stored on specific shelves within the office. Many researchers stay within the same field for a good number of years, in most cases not moving offices. This can be noticed from the accumulation of substantial amount of notes which is reflected by the number of folders on shelves, leading to notes being dispersed all over the office, always creating some confusion when it comes to the start of a new meeting. The struggle doesn't stop here, keeping track of the decisions that are made in these meetings is a massive issue; having them written on a piece of paper, in a folder, on a shelf somewhere doesn't really provide any functionality in terms of keeping up to date with the statuses of decisions or action points, nor does it give us an overall progress report or does it provide an infrastructure for alerting people of tasks.

#### **Exiting Solution:**

Even though there are many solutions that exist in the current tablet market that try to address the aforementioned problems, none of them are tailored specifically for use in academia, rather they are more general purpose applications that target a broader market,

trying to encapsulate as many customers as possible. This section will describe existing technologies that have been researched, tried and tested and continue to illustrate the gap in the market for academic note taking.

#### Evernote, OneNote and Google Docs

Evernote is a multi-platform note taking system which supports a wide variety of platforms, ranging from iOS for iPhones and iPads to Android, Windows Phone and Web, with support even for PCs on both Mac and Windows.

Similar to Evernote, Microsoft's OneNote is available on a wide variety of platforms, but for continuity we will focus here on their iOS version of the application. [31] OneNote provides a slightly different method of organizing notes, through the introduction of sections in addition to having notebooks. This is very useful for a continual documentation where everything is still relevant each time that the notes are accessed, however this is not the case with academic meetings, where we usually are only interested in the latest, most recent updates and notes on previous meetings become a distraction more than anything when it comes to viewing then notes again.

Google Docs is accessible on all platforms and provides amazing collaborative document creation. With its primary objective being collaboration, Google Docs has the underlying infrastructure to automatically save all work in real time, providing an extensive history through which rollback to earlier versions of a document is made possible. With support for offline access as well, note taking is taken to a completely new level.

#### C. Challenges:

Some of the challenges that could face when developing the app are:

- Traditional paper-based note-taking also has the advantage of being less prone to technical failures than tablets and phones
- Students may also be discouraged from using these apps due to the overwhelming number of note-taking apps available and their varied functionality.
- There is also disagreement as to whether devices should be allowed in the classroom, as they can serve as a distraction to students.
- Lack of Android Studio App development skills.

**D. Motivation and Need:**

There are many current application for note taking in the market that provide wide range of functionalities and better features from one another. Existing application do not explicitly serve for needs of academia, rather they are more general purpose application that target a broader market, trying to gain as many customer as possible. Due to more advance features, usability range is low as most people are not aware of its proper usage and functionality. These gaps in existing application formed the starting point for this project which aimed to create an android based application called Note taking app which is simple but will provide basic features to maintain notes for academic students.

### 3. Aim and Objectives of the Project

*(Please write the actual aim of your project. Also, describe the measurable objectives of the project and define the expected results. Use results-oriented wording with verbs such as 'to develop..', 'to implement..', 'to research..', 'to determine..', 'to identify..'. The objectives should not be statements and should not include explanations and benefits. The objective should actually specify in simple words what the project team intends to achieve (something concrete and measurable/ deliverable). Fill only those objectives that are applicable to the proposed project.)*

**Aim:** To develop an Android application that provides a note-taking platform where students can keep note of their teachers, assignment dates (classwork and homework) and important events during classes.

**Objective:**

- **Record and review:** It is easier and more helpful to record your notes. This can be useful when it comes to revision because it allows you to read the notes you have made without having to have access to all your books, papers, etc.
- **Give you what you need, when you need it:** The notes which have been saved in the application will be accessible at anytime and anywhere.
- **Saves a lot of time:** The notes can be search easily as the notes are organized

## 4. Methodology

### A. Development / Research / Test Methodology:

**Problem Statement :** Throughout this journey, an academic is typically faced with multiple, consecutive meetings, day after day, week after week. Having little to no time for lunch breaks let alone bathroom breaks. This journey is typically documented through the use of physical notes with the never failing pen and paper, categorized into specific sections, within specific folders, stored on specific shelves within the office. Many researchers stay within the same field for a good number of years, in most cases not moving offices. This can be noticed from the accumulation of substantial amount of notes which is reflected by the number of folders on shelves, leading to notes being dispersed all over the office, always creating some confusion when it comes to the start of a new meeting. The struggle doesn't stop here, keeping track of the decisions that are made in these meetings is a massive issue; having them written on a piece of paper, in a folder, on a shelf somewhere doesn't really provide any functionality in terms of keeping up to date with the statuses of decisions or action points, nor does it give us an overall progress report or does it provide an infrastructure for alerting people of tasks.

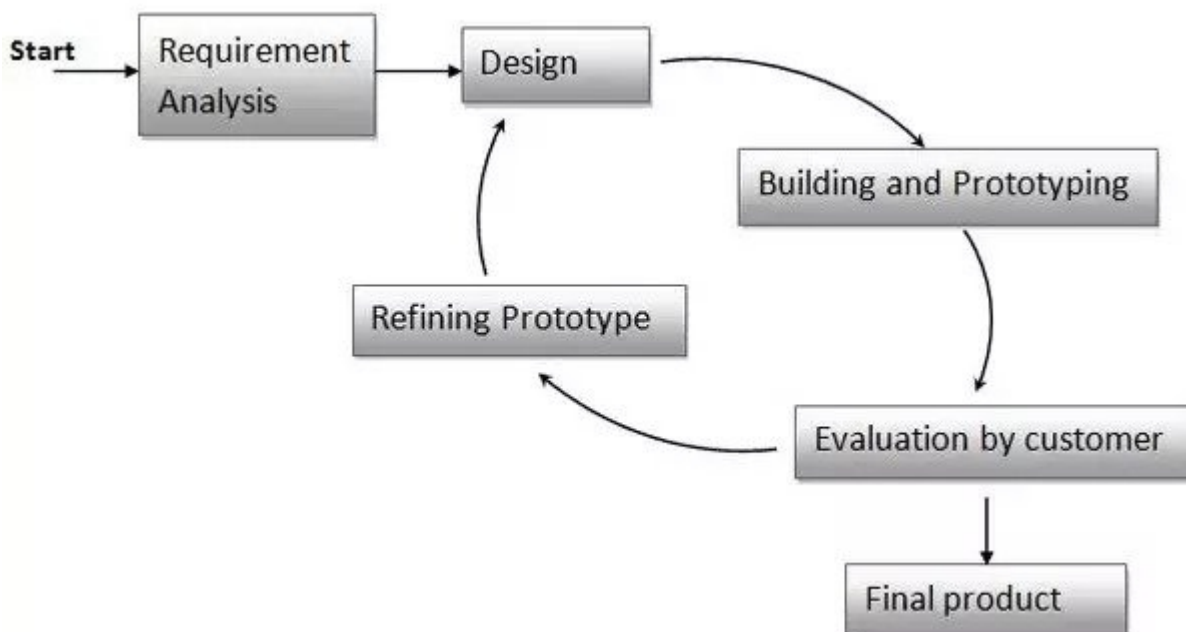


Figure: Prototype Model



**Prototyping Model** is a software development model in which prototype is built, tested, and reworked until an acceptable prototype is achieved. It also creates base to produce the final system or software. It works best in scenarios where the project's requirements are not known in detail. It is an iterative, trial and error method which takes place between developer and client.

Using the above prototype model requirements of the system are defined. Requirement analysis will be done using SRS Document, Survey Report, Use case diagram, Activity diagram and Class diagram. In the design part I am going to create a simple UI design with the basic features. In building and prototyping, I am going to develop a small working model from the above design made. In evaluation, we will present our system to the client for a review. From the review i will refine our prototype until all the requirement of our system are met.

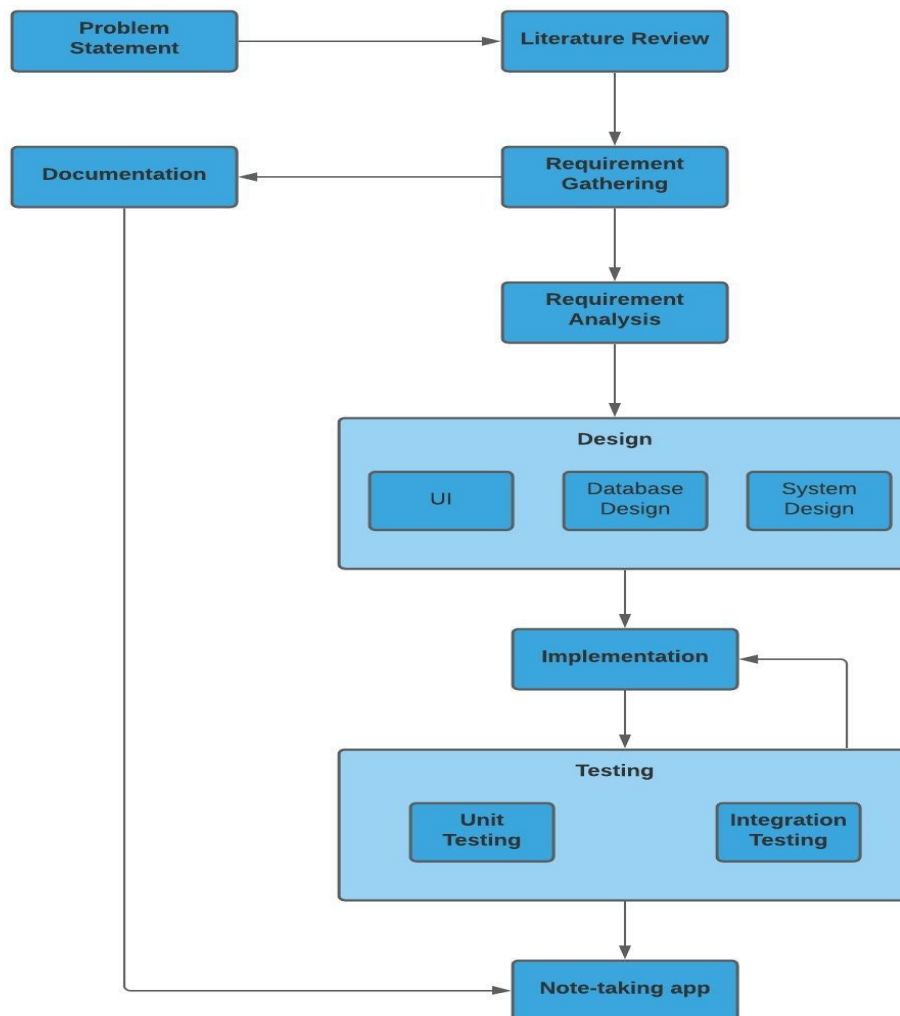


Figure: Methodology

The above diagram shows the overall method to be used in our project. Firstly, we began by gathering information of how students can take note easily using these app so that we can have better understanding of how our system can help to solve those problems.

Secondly, i started with a literature review where i reviewed the papers related to our issues, went through some research papers and currently implemented applications and projects to learn more about our topic. After reviewing the literature, i will gather data on how our system can Operate.

Then the i will move on to the stage of requirement collection where i will collect information through different methods such as meeting, brainstorming and conducting suitable surveys. I will also begin the documentation process along with the requirement collection phase. To the project text, any required details will be added.

After analyzing the requirement gathering, i will proceed to the design stage where the database, app icon, user interface and system design will be designed by myself. The next stage consists of the development of software, where different app features will be created. In order to ensure the functionality of each part, each feature will be checked through the testing process during development.

In our system development, the creation of the app will be based on the method of prototyping for efficiency and effectiveness.

In testing phase i will use two testing methods: unit testing for each component and integration testing to ensure proper functioning of the app as a whole. While testing if there are any issues encountered then the team will resolve the issue and test again.

In the final phase i will create project document where it will describe the details about the Note-taking application with user manual and fully functional application.

<b>B. Project Team:</b>	
<b><i>Title / Position</i></b>	<b><i>Number</i></b>
Project Internal Guide	Mrs Sonam Wangmo
Project External Guide	
Student Team Members	Tshering Penjor
Others (please specify)	
Add more rows if required	

**C. Project Activities:**

*(Please list and describe the main project activities, including those associated with the transfer of the research results to customers/beneficiaries. The timing and duration of research activities are to be shown in the Gantt chart in Section 8.)*

Following are the main activities for my project:

1. Literature Review.
2. Planning
3. Do requirement gathering and analysis.
4. Design of prototype
5. Development feature: User Registration.
6. Development feature: Note-taking Platform interface.
7. Develop feature: Notification and Feedback.
8. Develop feature: Help and About.
9. Final Testing.
10. Final Documentation.
11. Report Writing / Presentation

**D. Key Milestones and Deliverable:**

*(Please list and describe the principal milestones and associated deliverables of the project. A key milestone is reached when a significant phase in the project is concluded, e.g. selection and simulation of algorithms, completion of architectural design and design documents, commissioning of equipment, completion of test, etc.) The timing of milestones is also to be shown in the Gantt chart in Section 8.*

No.	Elapsed time from start (in months) of the project	Milestone	Deliverables
1	14/2/21 - 11/3/21	Topic Selection	Selection of topic for android app development
2	3/3/21 - 14/3/21	Proposal Report	Documentation of proposal report
3	15/3/21 - 21/3/21	Requirement Gathering and Specification	Requirements
4	22/3/21 - 28/3/21	Requirement Analysis	SRS Document, Survey report, Use case diagram, Activity diagram, Class diagram.
5	28/3/21 - 31/3/21	Design UI	UI design
6	1/4/21 - 15/4/21	Feature Development: User Registration	Second Prototype
7	16/4/21 - 30/4/21	Feature Development:Note-taking plate-form interface	Third Prototype
8	1/5/21 - 6/5/21	Feature Development:Notification and Feedback	Forth Prototype
9	7/5/21 - 12/5/21	Feature Development: Help and About	Fifth Prototype
10	13/5/21 - 15/5/21	Final Testing	Sixth Prototype
11	16/5/21 - 22/5/21	Documentation	Final Application

12	23/5/21 - 27/5/21	Project Report Writing / Presentation	Test Case And Presentation
(Please add more rows if required.)			

**5. Benefits of the Project (Expected output/outcomes):****Output:**

- Note-taking app
- Documentation
- Project Report
- Research Paper

**Outcomes:**

- To learn Android application development
- To build team work and management skills
- Enable you to clear your doubts

**6. Risk Analysis/Feasibility****A. Risks of the Project:**

(Please describe the factors that may cause delays in, or prevent implementation of, the project as proposed above; estimate the degree of risk.)

(Please mark ☒ where applicable)

	Low	Medium	High
Technical risk		<input checked="" type="checkbox"/>	
Timing risk		<input checked="" type="checkbox"/>	
Budget risk	<input checked="" type="checkbox"/>		

**A1. Comments(Describe the risk):****Technical Risk:**

- The continuous release of the newer android version may affect the compatibility of the users having older versions of android.
- Chances of losing the data on the project due to hardware or software failures of the systems of the team members.
- The app after successive addition of the features might fail during the testing.

- Developers tend to rush their design process in order to proceed to the next activity resulting in a less user friendly application.
- Gold Plating: Developers sometimes like to show off their skills by adding unnecessary features.

#### **Schedule Risk:**

- Not being able to achieve the milestone on the intended date due to college programs coinciding with the project schedules or due to medical reasons or personal reasons involving the team members.
- The estimated time for a particular activity may not be as planned requiring much more time and effort.

#### **Risk Mitigation**

##### **Technical Risk**

- The app should be developed with backwards compatibility which allows users with older versions of the android OS to use the app.
- The data on the project will be backed up and moreover all the team members will have the copy of the project source code and documents.
- It will undergo integration testing for correct functioning to prevent such occurrences.
- Only the core features that are mentioned will be developed avoiding unnecessary features.

##### **Schedule Risk**

- The team will follow the time schedule very strictly without any interference. If any medical or personal cases arises then it will be compensated with extra effort given by the remaining team members.
- The activity requiring more time may affect the schedule but to prevent this from happening other activity with less priority will be done with a much shorter duration to fit in the schedule.



## 7. Project Approval Certificate

*(Approval of Project Proposal by the Competent Authority (Department Chairman) and Project Review Team is mandatory before the start of project execution.)*

**Project Review Team:**

SI #	Name	Signature
------	------	-----------

(Please add more rows if required.)

**Project Coordinator**

Name: Mrs Sonam Wangmo

Designation: Lecturer

Email: sonamwangmo.gcit@rub.edu.bt

Date: 13 March

Signature:

**Competent Authority – Head of Department**

Name:

Designation:

Email:

Date:

Signature

& stamp:



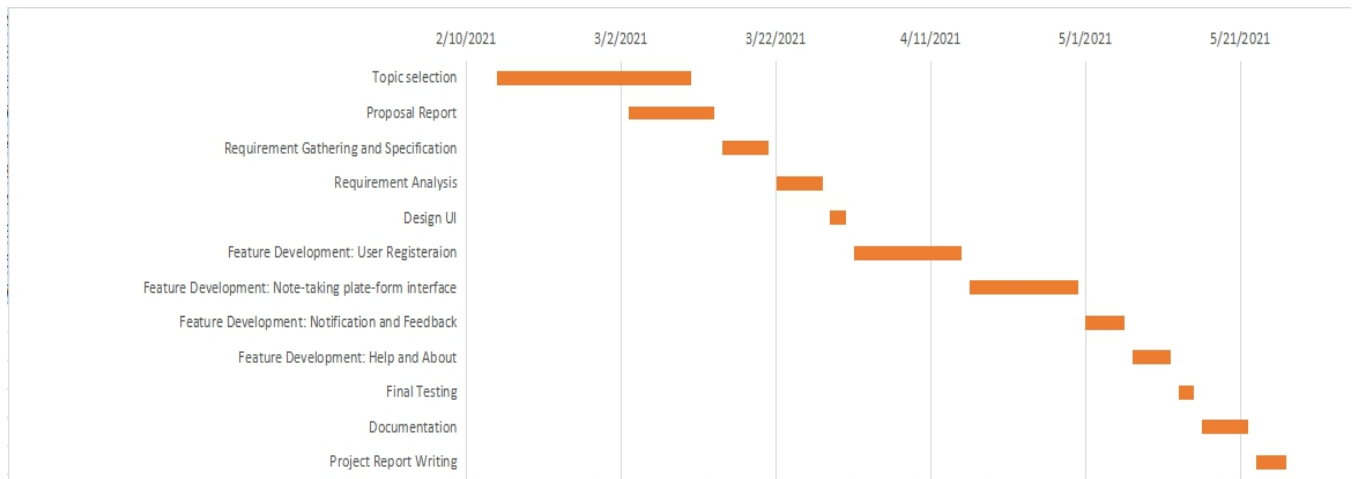
## **8. Reviewers Panel Comments**

## 10. Project Schedule / Milestone Chart /Work plan

*(Project schedule using MS-Project (or similar tools) with all tasks, deliverables, milestones, clearly indicated are preferred. Task should be measured in terms of hours)*

ID	Task Name	Start Date	Finished Date	Days To Complete
1	Topic selection	2/14/2021	3/11/2021	25
2	Proposal Report	3/3/2021	3/14/2021	11
4	Requirement Gathering and Specification	3/15/2021	3/21/2021	6
5	Requirement Analysis	3/22/2021	3/28/2021	6
6	Design UI	3/29/2021	3/31/2021	2
7	Feature Development: User Registraion	4/1/2021	4/15/2021	14
8	Feature Development: Note-taking plate-form interface	4/16/2021	4/30/2021	14
9	Feature Development: Notification and Feedback	5/1/2021	5/6/2021	5
10	Feature Development: Help and About	5/7/2021	5/12/2021	5
11	Final Testing	5/13/2021	5/15/2021	2
12	Documentation	5/16/2021	5/22/2021	6
13	Project Report Writing	5/23/2021	5/27/2021	4

## Gantt Chart



### **13. Report Writing Guidelines**

*(Project report will be written under the specified guidelines.)*

## Bibliography

Arnhem, V., & Pieta, J. (1 July 2013). Unpacking Evernote: Apps for Note-Taking and a Repository for Note-Keeping. *The Charleston Advisor*, 55-57.

GoodNotes. (2020, October 13). Cornell note taking - the best way to take NOTES EXPLAINED. Retrieved February 25, 2021, from <https://medium.goodnotes.com/study-with-ease-the-best-way-to-take-notes-2749a3e8297b>

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