Proposal

For

Second Year Project

Bachelor of Science in Information Technology

Inside Bhutan

Submitted by

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Gyalpozhing College of Information Technology

GyalpozhingCollege 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.

GyalpozhingCollege of Information Technology

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
jigmewangmo.gcit@rub.edu.bt

Tshering Lhamo
tsheringlhamo.gcit@rub.edu.bt

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GyalpozhingCollege of Information Technology

Application for Final Year Project

1. **Project Identification**

A. Reference Number: (for office use only)
B. Project Title: Inside Bhutan

C. Project Internal Guide:

Name:	Sonam Wangmo
Designation:	Lecturer
Organization:	Gyalpozhing College Of Information Technology
Mobile # :	17391134 Tel. # :
Email:	Sonamwangmo.gcit@rub.edu.bt

C1. Project External Guide:

Name:	**NA**
Designation:	
Organization:	
Mobile # :	Tel. # :
Email:	

C2. Student Group Lead:

Name:	
Roll No:	
Department:	
Mobile # :	Tel. # :
Email:	

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.)

Inside Bhutan, Explore, View, Profile, Upload image, Bhutan

F. Research and Development Theme:

It is an independent platform that can be used for the sole purpose of uploading the pictures with the explanation of places. In Bhutan there is no appropriate platform to upload the pictures of the trip/travel. In order to upload the picture of their trip we either use Facebook or Instagram to post the pictures. And if the people want to go for a trip they have to Google the place or ask others about their opinions on the place. Inside Bhutan application will help the users to know better about the places that are inside the Bhutan with the explanation about the place. You can get the travel inspiration in multiple ways on the trip planning by checking out the explore functionality. And they can upload the picture with the valuable information about the place where it may be informative for other users.

As there are no apps like inside Bhutan to upload the pictures of places of Bhutan. It can be helpful for the people of Bhutan to know more about the places present inside Bhutan. My project is dedicated to developing an app that can make better relationship among people of Bhutan and to know about places for travelling.

G. Project Status:

(Please mark ☑)

☑ New   Modification to previous Project

Extension of existing project

H. Project Duration:

Expected Starting Date: 8ᵗʰ February,2021

Planned Duration in

months: 4 months

2.   Scope, Introduction and Background of the Project

A. Scope of the Project:

System Scope:

Inside Bhutan is the android application with the following features:

Sign up- First users have to sign up to register in the app Inside Bhutan with E-mail/G-mail account or they can sign up with their Google Account.

Sign In – User can sign in with their credential verified.

1.User Name / E-mail account

2.Password

Home Page - Once they have Logged in to the app it will display the images of the Bhutan with the places name to make users know about the places inside Bhutan.

Explore – Explore everywhere, it will recommend destination for the users to make the travel more memorable.

View – users can view the pictures of others who have uploaded the pictures.

Profile – users can collect their pictures with their loved ones and of their own.

CRUD – Admin will perform the crud operation.

User Scope: Inside Bhutan is the android based application where people of the Bhutan will upload the Images of their journey.

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

(Detailed summary of what all has been done internationally in the proposed area quoting references and bibliography. Please note that this section demonstrates the depth of knowledge of the project team and builds the confidence of the evaluators about capability of the team in achieving the stated objectives.)
(Please describe the current state of the art specific to this research topic.)

Introduction:
The traveling is about exploring and understanding the place, things, and making some unforgettable memories**.** With the increasing number of mobile phones, users has change the way travelers make their plan.

Travelling plays an important part in making us feel relaxed and rejuvenated. It also brings positive changes in our life and keeps us alive and active. Travelling gives us practical experience of things we have studied in the books and surfed on the internet. Nowadays, many people like travelling as they want to explore the world and watch everything they have read about. And this seems to be quite justified as practical knowledge is way more essential and effective than the theoretical one. People like to visit historical places present in different parts of the world and gather information.

Technology has changed the world tremendously. It has made life easier and more convenient. The tasks that used to take days can be completed in hours and minutes with the help of the technology. It is hard to imagine life without technology nowadays as it has become an integral part of daily life. Travelling has evolved with the advent of technology. People are often hesitant to travel because it seems like too much trouble. Planning a trip is a time-consuming process and people often have difficulty in finding time to plan the trip. Technology has made it easier for people to plan the trip because it saves time and helps in efficient planning.

In Bhutan there is no appropriate platform to upload the pictures of the trip/travel. In order to upload the picture of their trip we either use Facebook or Instagram to post the pictures. And if the people want to go for a trip they have to Google the place or ask others about their opinions on the place. Inside Bhutan application will help the users to know better about the places that are inside the Bhutan with the explanation about the place. You can get the travel inspiration in multiple ways on the trip planning by checking out the explore functionality. And they can upload the picture with the valuable information about the place where it may be informative for other users.

Inside Bhutan is social platform that allows you to find the suggestion in a location with valuable explanation about the place that is inside the Bhutan where users can post the pictures with clear explanation to help other users to inspire to visit the place. They are arranged in user-friendly list created by users, making travel planning much easier. Instead of Google the place or asked others about the places or head blindly to the

place they can select the places based on the awesome photos posed by other users in view functionality. Finally the users can upload the pictures and collect it in their profile.

Literature Review:

APP Review:

1) Why Trover is the Trip Planning App of 2020
A Discovery is created when a user uploads their own original images to the web and fills out the necessary details. These Discoveries are what make Trover so genuine and usable. What you see is just what you get, plus a little extra. A Trover is an Authentic and Functional Trip Planning App which provides a platform for the people to share and post about the places they have visited along with solid locations, images and maps so that the readers gets more excited/contended with their content posted by the visitors and gets inspired to visit and make a plan for vacation trip.

2) TripIt: Travel Planner

It is a beautifully designed app which can be used while planning a vacation trip especially suited for the travellers or the people who usually goes for vacation trip. We can use this app instantly — even when you're offline. TripIt for Android Wear provides even more convenience, making the travel reservation details available at a glance. Not only it is easy and convenient to use but also TripIt has lots of features to help you stay organized and find your way around on your next road trip which will be a great help for the people who loves travelling.

3) Exploring the structure of travel planning on the internet.

Travelers depend on travel-related information to satisfy their various information needs including travel planning (Vogt and Fesenmaier 1998). However, travelers are often overwhelmed by huge amount of information and not able to locate the information they intend to find (Pan and Fesenmaier 2000). Recent studies of online tourism have confirmed that travel planning on the Web is a frustrating experience (Radosevich 1997; Stoltz 1999). One important cause for the usability problems of the Internet as a travel information source is that travel information search is highly dynamic and contingent on an information searcher's background knowledge, his or her individual characteristics, search tasks, and stages of travel planning (Jeng 1999).

Current State Of Arts:

In Bhutan there is no appropriate platform to upload the pictures of the trip/travel. In order to upload the picture of their trip we either use Facebook or Instagram to post the pictures. And if the people want to go for a trip they have to Google the place or ask others about their opinions on the place. Inside Bhutan application will help the users to know better about the places that are inside the Bhutan with the explanation about the place. You can get the travel inspiration in multiple ways on the trip planning by checking out the explore functionality. And they can upload the picture with the valuable information about the place where it may be informative for other users.

C. Challenges:

(Please describe the challenges, specific to this research topic, currently being faced internationally.)

Performance: Make your app responsive and smooth.

Security: keep source code and user data safe.

Compatibility: Run well on older platform version.

Developing an app without being proficient is hard: Developing an app is not an easy task as to develop an app requires a lot of knowledge as well as it should be liked by the user.

User-friendly UI: Developing a user-friendly app is always a challenging task. With modern technology, there is always newer and better UI, of which we need to have the knowledge.

Resource Availability: Need high speed internet connection and compatible devices for the development of app. Not familiar with the software used for the development of app(Android studio).

D. Motivation and Need:

(Please describe the motivation and need for this work.)

In Bhutan there is no trip planning app to get travel inspirations. To post the pictures the users have to go to social media platform like instagram and facebook to post the pictures that wow them. There is no appropriate platform in Bhutan to post or save their travel pictures. Inside Bhutan app will help the users to plan the travel trips where they can decide on where they want to explore and make memories and they can post the pictures with valuable information like blog posts.

In Bhutan most of the people prefer to go for the vacation or on the trip with their loved ones. In order to help them to get the information about the place they don't have to Google the places or have to ask others about their opinions on the places and tends to overload their brain. If there is the app called Inside Bhutan which helps them for the trip that would be both inspiring and informative for the traveler. When a user uploads their photo, they also share solid information. It's generally a mix of background, practical and personal information so you get authentic insight on the photo's whereabouts.

There is an need for an Inside Bhutan Application for the traveler or trip planner to know about the places where they want to visit and upload the pictures with the valuable information like blog post.

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 :   Develop an Android based application(Inside Bhutan) for a traveler to share travel trips and upload the places and activities to their own bucket list.
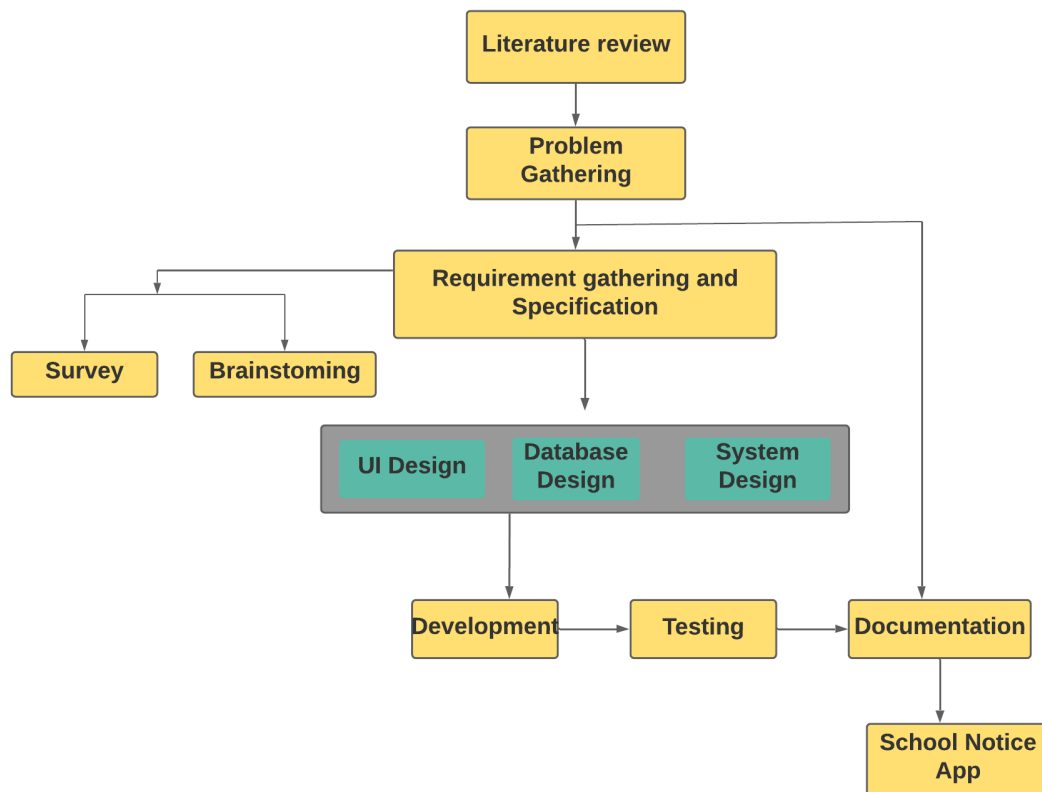
OBJECTIVES :
- ✓ To launch an app in play store.
- ✓ Save inspirational places and activities to your very own bucket list.
- ✓ Post photos from your travels
- ✓ To develop an online based android application.(Inside Bhutan)

4. Methodology

A. Development / Research / Test Methodology:

(Please describe the technical details and justification of your development and research plan and test plan and testing strategies. Identify specialized equipment, facilities and infrastructure which are required for the project and their utilization plan. The block diagrams, system flow charts, high level algorithm details etc. have to be provided in this section. Also, describe the overall methodology to be used for the particular research topic)

General Methodology:

```
                    ┌──────────────────┐
                    │ Literature review│
                    └──────────────────┘
                             │
                    ┌──────────────────┐
                    │     Problem      │
                    │    Gathering     │
                    └──────────────────┘
                             │
              ┌──────────────────────────────┐
              │   Requirement gathering and  │
              │         Specification        │
              └──────────────────────────────┘
      ┌──────────────┐   ┌──────────────┐
      │    Survey     │   │ Brainstoming │
      └──────────────┘   └──────────────┘

        ┌─────────────────────────────────────────┐
        │ UI Design   Database Design  System      │
        │             Design           Design      │
        └─────────────────────────────────────────┘

      ┌──────────────┐   ┌──────────┐   ┌───────────────┐
      │ Development  │→ │ Testing  │→ │ Documentation │
      └──────────────┘   └──────────┘   └───────────────┘
                                         ┌───────────────┐
                                         │ School Notice │
                                         │     App       │
                                         └───────────────┘
```

Literature Review/ Problem Gathering- Literature Review is done to get the help and clear concept about the project. We have gone through some related app or websites that is related to Project topic. We have collected the drawbacks faced by the current system (school management).

Requirement Gathering – Collecting all the required information regarding the development of App through Survey, brainstorming with project guide and collecting information from the internet we will design the user-interface design, Database design and finally the system design.

Designing and Development – Designing of the app from the information collected from the requirement gathering and analysis and codebase to develop the app.

Testing phase – Once app is developed, it need to be tested for the every development of features for the bugs and errors.
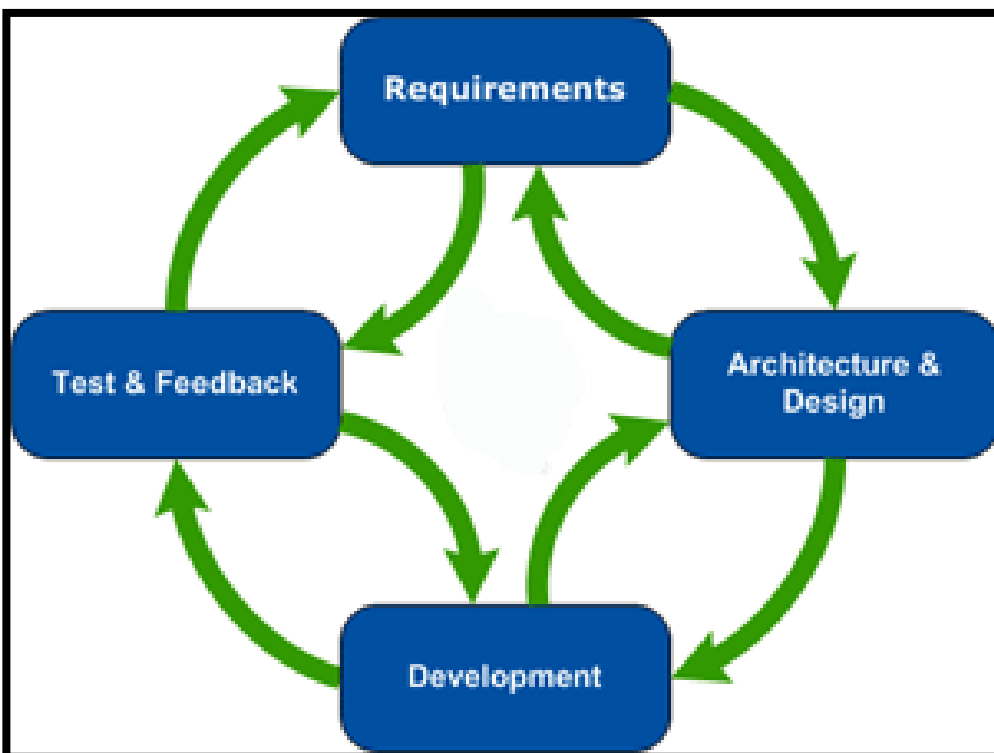
Documentation – The final phase is for documenting all the necessary things that are being done in the process of the development of the app. Documentation is necessary for the sole purpose of educating third parties and the users.

Agile Model

A gile methodology is a collection of innovative, user-centered approaches to system development. It tries to define an overall system plan quickly, develop and release software quickly, and then continuously revise the software to add additional features. Where Agile method breaks task into smaller iteration or parts. It isn't a set of tools or a single methodology, but a philosophy of people who had realized that in software development it's pretty hard to predict

    i. The number of changes and priority changes in software requirements.
    ii. How much design is needed before construction is used to prove it.
    iii. The time for analysis, design, construction and testing.

Agile model plans regarding the number of iterations the duration and the scope of each iteration are clearly defined in advance. Agile development methodology is a conceptual framework for undertaking any software engineering project.

Needs of Agile Model
- ❖ Customer satisfaction
- ❖ Continuous delivery of useful software.
- ❖ People and interactions are emphasized rather than process and tools.
- ❖ Customers, developers and testers constantly interact with each other.
- ❖ Working software is delivered frequently.
- ❖ Risk is reduced.

B. Project Team:

Title / Position	Number
Project Internal Guide	Miss. Sonam Wangmo
Project External Guide	
Student Team Members	Sonam Yangchen
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.)

1. Installation of required software for development process:

   ✓ Android Studio

2. Feasibility study: Survey will be done in Google form for teacher and parents separately to check the feasibility for the project.

3. Software Design: in this phase it include designing user interface, database design and familiarizing the functionalities that will be added while developing the app.

4. Coding and development of app: In this phase designing is done from the information obtained from the requirement gathering and requirement specification and at the same time developing the app by keeping the design concept in mind

5. Testing: in this phase once the app has been developed, it needs to be tested for identifying any bugs and errors.

6. Documentation: Documenting all the necessary things that are being done in the process of the developing of the app. Documentation is necessary for the sole purpose of educating third parties and users.

D. Key Milestones and Deliverables:

(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.	08/02/21-14/02/21	Topic Selection	Project Topic
2.	15/02/21-14/03/21	Problem statement and Literature Review	Project Proposal
3.	15/03/21-20/03/21	Requirement Gathering and Analysis	Documenting SRS Document
4.	21/03/21-25/03/21	Software Installation	Setting environment for development
5.	26/03/21-02/04/21	System Design	Architecture design, User Interface, Database design, Prototype, ER diagram, Relational diagram.
6.	03/04/21-10/05/21	Development /Coding	Source code and functional features implementing.
7.	10/05/21-15/05/21	Testing	Test case(Unit testing, Integration testing, system testing, Acceptance testing)
8.	16/05/2021-22/05/2021	Final documentation	Report documentation.

(Please add more rows if required.)

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

The benefits of the project Inside Bhutan is we can get the information about the vacation spot or the places where we feel like to spend our times with the loved ones from the app Inside Bhutan. Rather than digging through the Google or head blindly to the sport. It will help the users to pick the place based on the awesome pictures that the other users have uploaded with valuable information and users can get the information from the app inside Bhutan from the explore functionality.

The outcomes of the project would be fully functional Inside Bhutan with the following features:
- **Explore functionality:** users can explore the places inside Bhutan for the trip or for the vacation. They can choose their spot without searching in the Google. In this functionality there will be places inside Bhutan with the explanation of the place.
- **View functionality:** users can view the post of other traveler about the place with valuable description.
- **Profile:** users will have their own profile where they will upload the pictures with valuable information which will help others users to know better idea about the sport for the traveler.

The output of the project Inside Bhutan is:
- An android mobile application.
- Project report

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

	Low	Medium	High
Technical risk	☐	☑	☐
Timing risk	☐	☑	☐
Budget risk	☑	☐	☐

A1. Comments(Describe the risk):

1. **Technical risk:** As the development of the app begins, the lack of knowledge may become a hinder in the development.

2. **Timing risk:** The risk of whether the project will be completed on time or not will be also another risk as the development begins.

3. **Budget risk:** Since the project does not require any financial need, the risk of budget is not concern.

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:

Sl #   Name   Signature

(Please add more rows if required.)

Project Coordinator

Name:

Designation:

Email:

Date: Signature:

Competent Authority – Head of Department

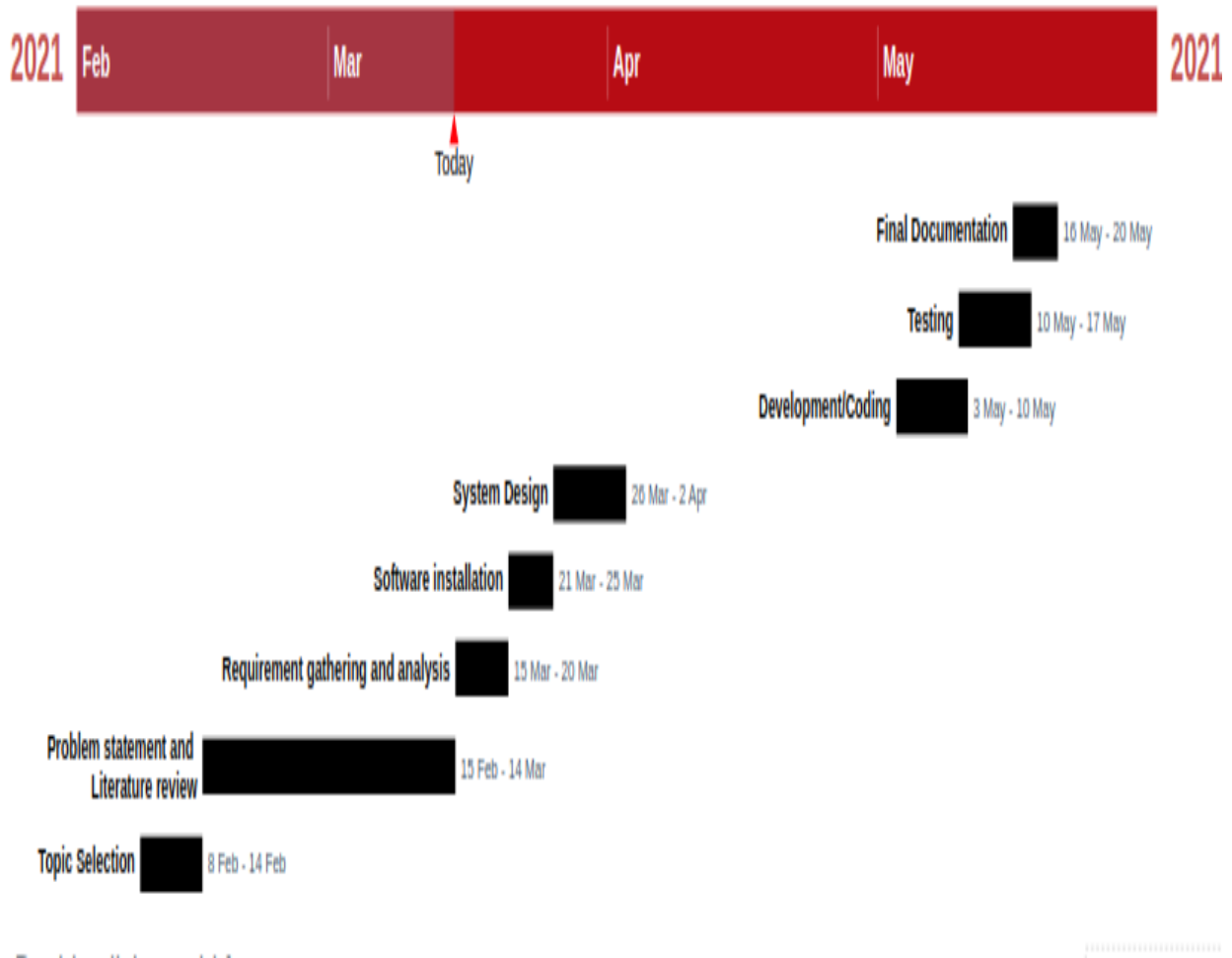Name:

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)

○ Title	T/M	Start	End	↻	%
○ Final Documentation	■ T ▾	16/05/2021	20/05/2021	4 days	%
○ Testing	■ T ▾	10/05/2021	17/05/2021	6 days	%
○ Development/Coding	■ T ▾	03/05/2021	10/05/2021	6 days	%
○ System Design	■ T ▾	26/03/2021	02/04/2021	6 days	%
○ Software installation	■ T ▾	21/03/2021	25/03/2021	4 days	%
○ Requirement gathering and analysis	■ T ▾	15/03/2021	20/03/2021	5 days	%
○ Problem statement and Literature review	■ T ▾	15/02/2021	14/03/2021	20 days	%
○ Topic Selection	■ T ▾	08/02/2021	14/02/2021	5 days	%

13. Report Writing Guidelines

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

Bibliography

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