LONDON
METROPOLITAN
UNIVERSITY

islington college
(इस्लिङटन कलेज)

Module Code & Module Title CS6PO5

Final Year Project

Assessment Weightage & Type

Final Year Project Proposal (5%)

Mitra Nepal Adventurous Trekking App

College ID: np01cp4a210218

Submitted to: (External Supervisor- Shekhar Timsina Sir)

(Internal Supervisor- Bisal G.C Sir)

Submission Date: 7th October 2023

Table of Content

Table of Figures

Mitra Nepal Adventurous Trekking App

1. Introduction

Travelers from all over the world are attracted to Nepal because of its distinctive combination of natural beauty, cultural legacy, and adventure opportunities. Trekking tour offices play a crucial role in facilitating trekking adventures in Nepal by offering services such as guides, permits, transportation, and accommodations.

Mitra Nepal is a leading Trekking and Tour Company in Nepal which provides package based tour as well as customized tour to its customers. Customer can book the packages online of tour or trekking of their choice through this app. The App contains different packages which include the details about the tour like duration, difficulty levels, Map showing trekking routes, pricing details with images and videos with description about the trip.

1.1 Problem scenario

Tourism has great Importance in Nepal, but due to limited Connectivity it is not able to sufficiently develop in this sector. Many trekking areas have limited connectivity or no internet connectivity. Similarly, we could find incorrect or outdated information about trekking, tour routes, accommodations which could lead to dangerous situation. Customer's safety and privacy is also a concern. Language and cultural differences could also be a problem.

1.2 The project as a solution

An Attractive, user-friendly app with a responsive design. Providing offline services, regularly updating and verifying data with easy payment methods. Ensuring that any personal data collected is secured. Allowing customers to choose the package of their choice and customize any tours of their interest. Assigning travel or tour guides according to their language preference.

2. <u>Aims and Objectives</u>

The aims and objective of the project are as follows:

a. Aims

- To create attractive user-friendly app with a responsive design.
- To provide easy Booking and Online Reservations system.
- To Expand Market reach

b. Objectives

- To create clear and engaging content describing about the tour details like routes, difficulty level, duration, map showing trekking routes and pricing.
- To create secure and efficient booking system with various payment methods along with confirmation emails and booking receipts.
- To provide gear rental services for customers who may not have their own equipment.
- To allow customer to take part in photo contest by sharing most beautiful photo that they capture during the journey.
- To allowing customers to customize their own tour such as choosing locations, routes, selecting dates and adding extra activities.
- To ensure that the Web app and Mobile app are accessible to international travelers, adventure enthusiasts and potential trekkers around the world.

3. Expected Outcomes and Deliverables

After the completion of the project a web app as well as mobile app is expected. It will be able to perform the following task.

- To show different packages related to tours and travels and allow customer to book the package of their choice.
- To provide personalized services, customer can request for customized tour facility according to their preferences and interests.
- To provides the facility of car renting service where customer can rent cars with reliable drivers.
- To request the trekking gears.
- To choose the guide according to their language preference.
- To recommends different packages to customer.
- To view breath taking views of different location.
- Customer can review about the journey.
- Admin can send notification to their customer about unique challenges or competitions with attractive offers like photo contest where customer can take part in contest by capturing the beauty of the trek and tour and uploading it.

4. <u>Project risks, threats and contingency plans</u>

Risk is the anticipation of loss, a prospective issue that could or might not arise in the future. Usually, it results from a lack of knowledge, authority, or time. Software risks are instances where there is a chance that a loss will occur throughout the software development process. Any loss could result from a rise in manufacturing costs, the creation of subpar software, or failing to finish the project on schedule (International Software test institute, 2023).

Various risks and threats are expected during the development of this system. Some of them are mentioned below:

- Difficulties on developing UI.
- OS system could crash.
- Could be difficult to implement all the features on time.
- Slow internet speed.
- Difficulties in code bugging.
- Incompatible hardware and Technology

The risks above could be minimized by following consistency plans:

- Researching and learning Designing.
- Backing up the data.
- Trying to complete the project fast.
- Connecting fast internet speed.
- Identifying the bug and researching.
- Testing app compatibility before starting the project.

5. Methodology:

For this project, I have planned to implement Lean Methodology. Lean is a working philosophy that places an emphasis on eliminating waste from a process. The basic idea behind it is that resource expenditure for any objective other than the generation of value for the end customer is wasteful and should be eliminated. This idea is put into practice from the viewpoint of the consumer of a good or service. Any activity or process that a client would be prepared to pay for is generally referred to as having value. A Lean process, to put it simply, actively concentrates on maintaining value with fewer effort. The goal is to develop greater efficiencies that lead to better process flow and, ultimately, faster process execution. Its five core principles are:

4. **Identifying Value:** Meeting the demands of client by only offering them services that are worthwhile. Waste is any activity that doesn't bring value.

5. **Mapping value stream:** Examining the workflow in its entirety, taking into account each activity. We will then be able to determine which actions bring value and which don't once this is completed.

6. **Creating Flow:** Workflow should be improved and streamlined, exposing any bottlenecks or pointless approval phases that can cause delays.

7. **Establishing Pull:** Working on where there is demand and when there is demand.

8. **Seeking Perfection:** Continuous improvement of the project should be done. Workflows should be reviewed and improved since tasks and workforces change (Guthrie, 2021).

6. Resource Requirements:

The basic requirements to complete this projects are as follows:

6.1 Software Requirements

Technology	Version	Purpose
.net	6.0	BackEnd
MySQL	8.0	Database
HTML5, CSS, Bootstrap5		FrontEnd
Prototype.io		Wireframes and Prototype
Team Gantt		Gantt Chart
Microsoft Word		Documentation
Draw.io		UML Diagram

6.2 Hardware Requirements

1. PC with windows 10
2. Android Phone

7. Work breakdown structure:

Project management techniques like work breakdown structures provide a visual manner to list the deliverables for a project. This is achieved by outlining significant turning points inside a hierarchical structure that divides complicated undertakings into more manageable chunks. Work breakdown structures are therefore appropriate for complicated projects with plenty of processes and stakeholders (Planview, 2023).
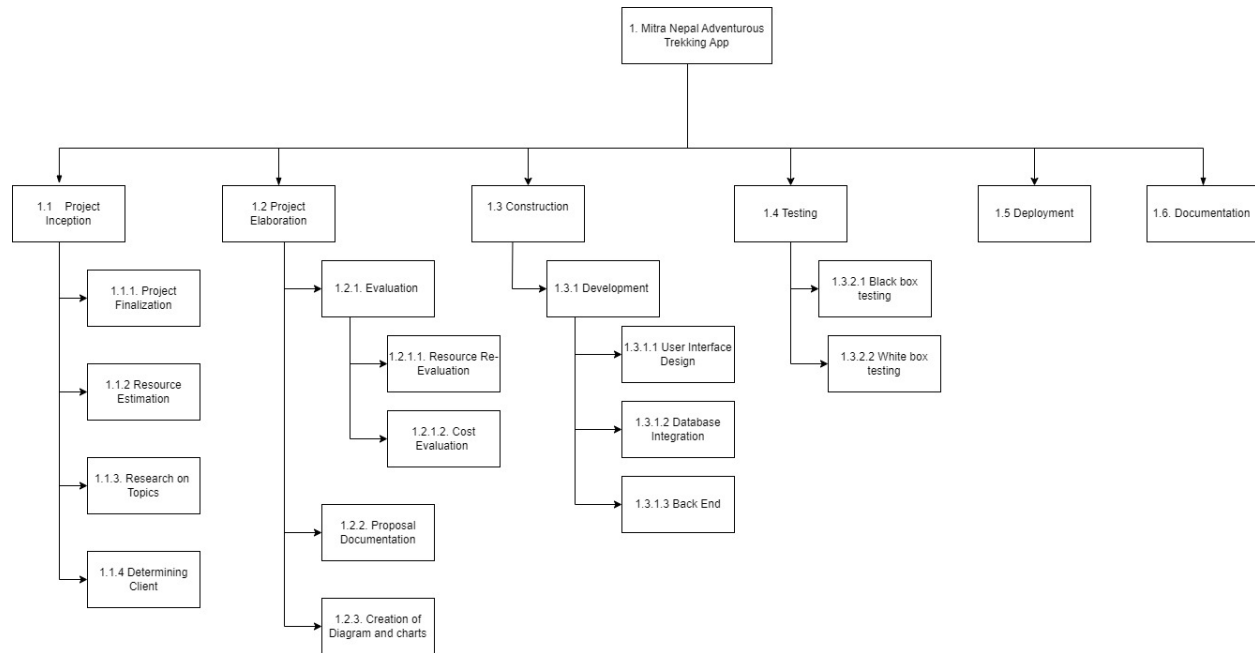

Figure 1: Work Breakdown Structure

Work breakdown structure for the project is shown in the figure below. To complete the project smoothly without any complications, the work to be done throughout the project is divided through this work breakdown structure. The first step to start the project is project Inception where the finalization of project then resources estimation is done followed by research on topics and final step is to determine the client. Then in project Elaboration phase the re-evaluation of project is done along with cost evaluation to complete the project. Then the proposal of project is prepared and diagrams and charts are created. Then the construction of the project is started through development where the first step is to create user interface design then the database is integrated and finally the backend development is done. After the completion of development part the program is tested by white box testing and black box testing methods. The project is deployed and then the documentation of the project is done.

8. Milestones:

A project milestone is a tool for project planning that is used to identify a certain point in a project timeline. Project milestones can signify the beginning and end of a project, the conclusion of a significant work phase, or anything else that's important to emphasize in a project, including the creation of project deliverables. By assisting everyone in understanding the goals of the project and the activities that must be done to attain them, milestones aid project teams in coordinating their efforts (Tristancho, 2023).
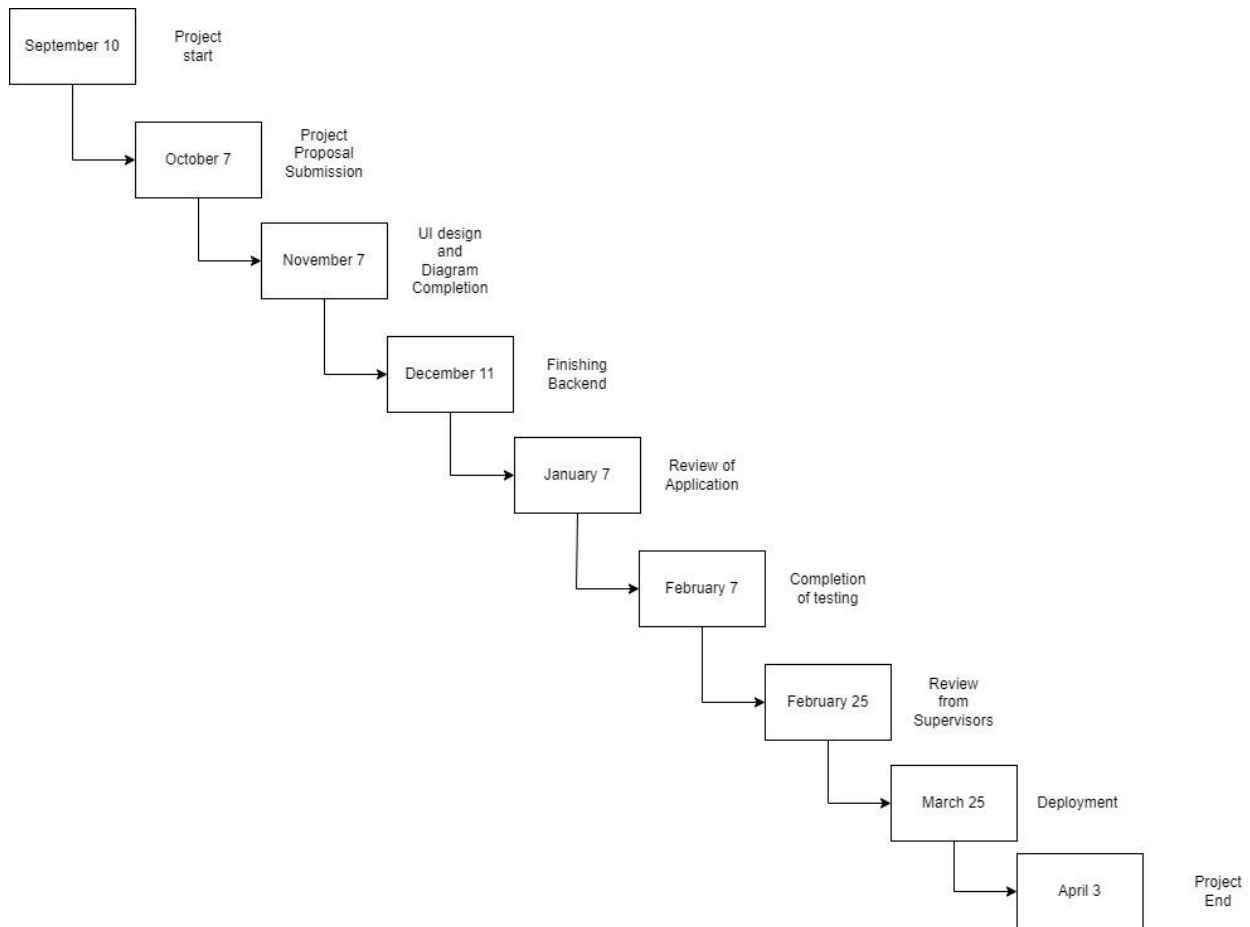

Figure 2: Milestones of the project

The given figures shows the timeline for the project to finish. Pitching idea and topic finalization was first milestone that was achieved. Then submitting the project proposal, which gives the idea about the entire project. The third milestone will be creating UI design and completing diagrams. Finishing backend would be the next milestone. After backend submission the application would be reviewed and then the testing is done. Then the project is reviewed from supervisor. The project is deployed and the documentation is completed which is most important part of the project. The project ends which is reviewed for the final time and submitted to the RTE.

9. Project Gantt chart

A Gantt chart is a project management tool that helps with the planning and scheduling of projects of all sizes. They are especially effective for project visualization. Project managers can track progress using Gantt charts, which are graphical representations of activities against time (APM, 2023).
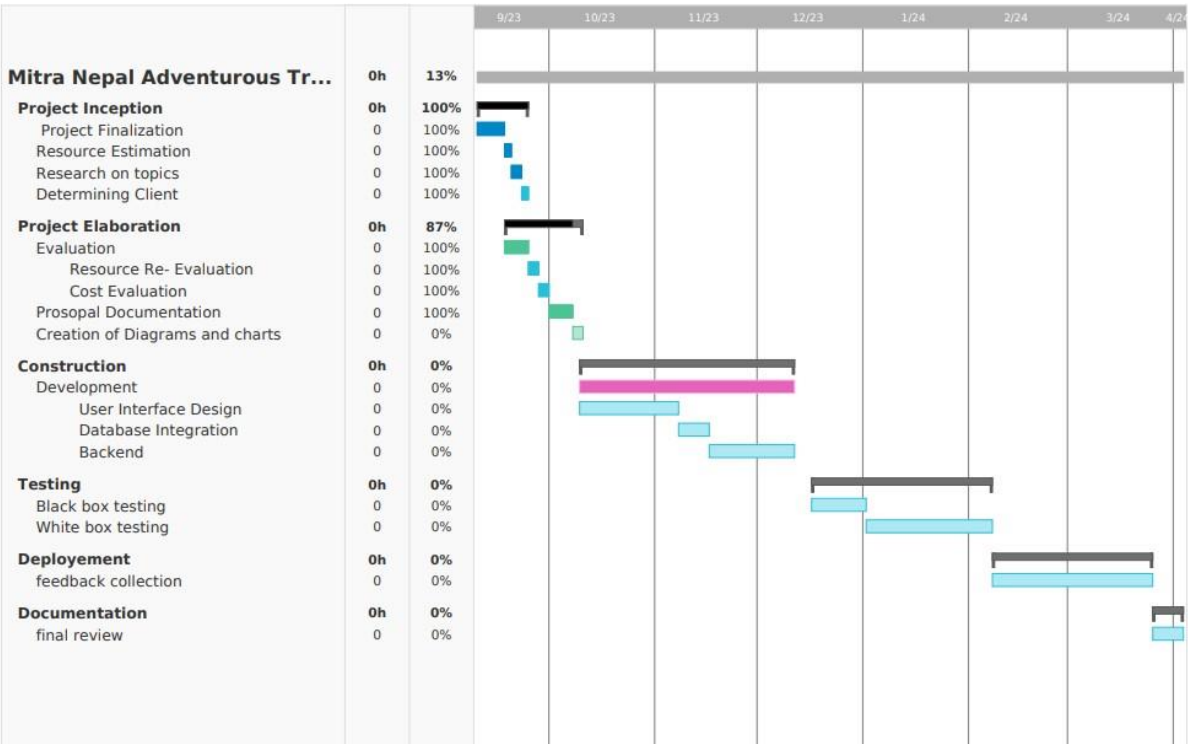

Figure 3: Gantt Chart

The figure shows the Gantt chart of the project.

10. Conclusion

The app will help the company to increase online visibility. The online presence of the company will make the company visible to potential customers worldwide, resulting in increased brand recognition and reach. Through reviews, comments, and questions, customers may connect directly with the website and app, boosting engagement and creating a sense of community. While enhancing their customers' whole trekking experience, the company can more effectively market their offerings, increase client satisfaction, and support the expansion of their business. Every task to complete the project will be done by breaking it into smaller steps and with full effort.

11. Bibliography & References

APM, 2023. *What is Gantt Chart?.* [Online]
Available at: https://www.apm.org.uk/
[Accessed 06 10 2023].

Guthrie, G., 2021. *Lean Management.* [Online]
Available at: https://nulab.com/learn/project-management/lean-management-pros-cons-everything/
[Accessed 6 10 2023].

International Software test institute, 2023. *What is software risk management?.* [Online]
Available at: https://www.test-institute.org/
[Accessed 05 10 2023].

Planview, 2023. *what is Work Break Down Structure.* [Online]
Available at: https://www.planview.com/resources/articles/work
[Accessed 5 10 2023].

Tristancho, C., 2023. *What are milestones in Project Management.* [Online]
Available at: https://www.projectmanager.com/blog/milestones-project-management
[Accessed 05 07 2023].

-