DEPAETMENT OF COMPUTER SCIENCE AND ENGINEERING

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Report 03

Project Planning Document

Submitted to:

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Report – 03

Project Planning Report

SchoolHub

1.Introduction

A goal without a plan is just a wish. The main objective of the project is to develop SchoolHub system to make the current communication system easy, robust, reliable, efficient and cost-effective as well as converting the manual communication system into an automated and computerized system and thus removing the hassles faced by using the manual one. But without a proper planning, the project is not possible.

The main purpose of this report is to plan, estimate cost, break the whole project tasks into smaller activities, schedule the project development and analyze different types of risks and prepare preliminary solutions to the problem. The budget needed for developing the system is about 2,70,000 BDT and the time needed for completing the project is approximately five months.

This report covers eight sections. Section 2 discusses how the development team is organized and the team member's role in the team. Section 3 illustrates about possible project risks, the likelihood of these risks, strategies for risk reduction. Hardware and software resource requirement is discussed in section 4. In section 5, the breakdown of the project into activities, milestones, and deliverables are discussed. Section 6 is on a project schedule that shows dependencies between activities, estimated time to reach each milestone and allocation of people to activities. Section 7 discusses monitoring and reporting mechanisms. The concluding remarks are given in Section 8.

2.Project Organization

The project organization is the structure of the project. A project organization is a structure that facilitates the coordination and implementation of project activities. It decides the project's process : planning how its costs, deadlines, personnel and more will be implemented and by which project management tools .Organizational Structure determines the relationship between functions and positions as well as sub divides and assigns roles, responsibilities,and authorities to carry out different tasks. A proper organizational structure is needed to balance many tasks efficiently and effectively. In project management, a task is an activity that needs to be accomplished within a defined period of time or by a deadline to work towards work-related goals. The project tasks are divided into some activities and the project team consists of some specific groups. The role of the team members in the development process of the system is given in Table 2.1.

Table 2.1: Role of Team Members

Serial No	Name	Roles	Responsibilities
01	Marufa Sultana	Project Manager	1. Lead and manage and coordinate the project team. 2. Recruit project staffs and consultants. 3. Develop and maintain a detailed project plan. 4. Manage project deliveries within constraints. 5. Monitor project progress and performance.
02	Tithi Rani Das	Analyst	1. Analyze the requirement of the system and system design. 2. Create and deliver Software Requirement Specification Document (SRS).
03	Sejuti Saha Peu	Designer	1. Design the system as well as the database structure. 2. Create Design Document (DD).
04	Salima Akhtar Nabila	Coder	1. Allocate necessary resource needed. 2. Implement the system according to the design document
05	Fahmida Alam	Tester	1. Check the system for errors. 2. Suggests improvement for the system.

3. Risk Analysis

An uncertain event that has a negative effect on project development is called a risk. It may affect the project schedule or affect the quality of the software. That's why, risk management is important to ensure project's efficiency, counter any problems that may affect the creation or development of the required system. The process of risk management involves identification of the risks that

may affect the project, analysis the likelihood of the risk, making plans to counter identified risks, monitor to take action when problem arises.

3.1 Risk Identification

In this step, the possible risks the project may encounter are identified. This process also includes analyzing the possibility of the risk and also the effect of the risk if occurred. Table 3.1 lists such risks and their likelihood and effects are described in table 3.2.

Table 3.1: List of possible risks.

Serial No.	Risk Name	Risk Type	Affects	Description
1	Time Estimation	Estimation	Project	The time required to develop the software is underestimated.
2	Requirements Change	Requirement Tool	Project and Product	Changes to requirements that require major design rework is proposed.
3	Product Competition	Organizational	Business	A competitive product is marketed before the system is completed.
4	Defective Component	Tool	Project	The components used in the project turns out to be defective.
5	Hardware Unavailability	Technology	Project	Hardware essential for the project not delivered on schedule.
6	Staff Unavailable	People	Project	Key staff falling ill on critical time.
7	Software Integration Problem	Tool	Product	Software tools not working together in an integrated way.
8	Database Failure	Technology	Product	The database used in the system cannot process as many transactionsper second as expected.

9	Staff Turnover	People l	Project	Experienced staff leaves the project before it is finished.
10	Financial Crisis	Organizational	Project	Organizational financial problems force reductions in the project budget.

Table 3.2: Possibility and Effects of the risks.

Serial No.	Risk Name	Possibility	Affects
1	Time Estimation	High	Serious
2	Requirements Change	Moderate	Serious
3	Product Competition	Low	Serious
4	Defective Component	Low	Tolerable
5	Hardware Unavailability	Moderate	Serious
6	Staff Unavailable	Moderate	Serious
7	Software Integration Problem	High	Tolerable
8	Database Failure	Moderate	Serious
9	Staff Turnover	Low	Catastrophic
10	Financial Crisis	Low	Catastrophic

3.2 Risk Reduction Strategies

The analysis of the risks is not sufficient. The strategies have to be devised for the time the risk arises to minimize its effect. The risk reduction strategies are described in Table 3.3

Table 3.3: Risk Reduction Strategies.

Serial No.	Risk Name	Reduction Strategies
1	Time Estimation	Overlap work and people, distribute work to outsource developers.

2	Requirements Change	Discuss theimpact of the requirement change with the customer.
3	Product Compitition	Increase publicity and adding anew feature to make the product better than the competitor.
4	Defective Component	Buying components from well-known sources and changing the component as soon as possible.
5	Hardware Unavailability	Required hardware is purchased beforehand at the starting of the project.
6	Staff Unavailable	Reorganizing team having more overlap of work and people, therefore, understand each other's jobs.
7	Software Integration Problem	Changing the software with more compatible ones.
8	Database Failure	Investigate the possibility of buying a higher-performance database.
9	Staff Turnover	Keeping staffs motivated, giving job security and providing a supportive environment.
10	Financial Crisis	Prepare a briefing document for senior management showing how the project is making a very important contribution to the goals of the business and presenting reasons why cuts to the project budget would not be cost-effective.

4. Hardware and Software Resource Requirement

For developing an effective and proper system some hardware and software are needed. Without appropriate hardware and software, a project continuation may be endangered or not possible. Good quality hardware ensures environment stability as well as system performance and good software helps rapidly development process and reduces the possibility of system crashes. Table 4.1 lists the hardware and software resources needed for the project.

Table 4.1: Hardware and Software Resource Requirement

Resource Type	Serial No	Resource Name	Quantity
	1	Personal Computer (Intel Core i5 8600K 3.6 GHz, 8GB DDR4 RAM)	03

Hardware	2	LAN Connection (10 MBps)	01
	3	Hard Drives (250 GB SSD)	03
	4	Keyboard and Mouse	03
Software	5	Operating System	03
	6	Database Management System	01
	7	Android Studio Bundle	01

5. Work Breakdown

A project is a huge collection of work. So the works have to be broken down into some tasks to make the execution of the project hassle-free and easy. It is also important to set milestones to track the progress of the project.Also, some deliverables are produced after completing tasks to deliver to either project staffs or to the client. Tasks of the project are summarized in Table 5.1 and Table 5.2 outlines the milestones and deliverables.

Table 5.1: Task Summery

Task	**Name of tasks**	**Achievement**
T1	Interviewing Staffs	
T2	Arranging Meeting with Stakeholders	
T3	Defining Function and Facilities	
T4	Preparing System Requirement Specification Document	Milestone (M1)
		Deliverable(D1)
T5	Designing System Structure	
T6	Designing Database Structure	
T7	Preparing Detailed Design Document	Milestone (M2)
		Deliverable(D2)
T8	Allocate Resources	
T9	Database Specification	

T10	Implementation of the System	Milestone (M3)
T11	Testing of the System	Milestone(M4)
T12	Delivering of the System	Deliverable(D3)

Table 5.2: Milestone and Deliverables

Type	Name	Description
Milestones	M1	Analysis of the System Completed
	M2	Designing of the System Completed
	M3	Implementation of the System Completed
	M4	Complete Testing of the System Completed.
Deliverables	D1	System Requirement Specification Document (SRS)
	D2	Design Document (DD)
	D3	Complete System

6. Project Schedule

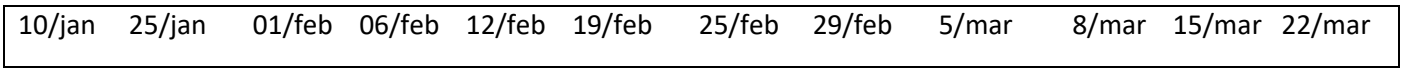
Projects scheduling is the process of deciding how the works in a project will be organized in as separate tasks and when and how these tasks will be executed .It is done by estimating calendar time and effort required to complete each task. It also identifies who will work on the set asks. To organize and complete a project in a timely, quality and financially responsible manner a proper scheduling of the project is very important. The number of persons assigned to the task, the duration of that task and dependencies of the tasks is included in schedule representation which is shown in table 6.1

Table 6.1: Schedule Representation

Tasks	Effort (Person – Days)	Start Date	Duration (Days)	Dependencies
T1	07	January 10, 2020	05	
T2	03	January 10, 2020	05	
T3	05	January 23, 2020	06	T1,T2

T4	05	January 29, 2020	04	T3
T5	10	February 03, 2020	12	T4 (M1)
T6	05	February 03, 2020	08	T4 (M1)
T7	05	February 13, 2020	04	T5,T6
T8	05	February 17, 2020	03	T7 (M2)
T9	03	February 17, 2020	14	T7 (M2)
T10	10	February 17, 2020	21	T7 (M2)
T11	05	March 08, 2020	09	T8,T9, T10 (M3)
T12	05	March 17, 2020	05	T11 (M4)

The task dependency and milestone are best represented through a graphical chart called 'Gantt chart' which is a bar diagram. Gantt Chart of the project is demonstrated in Figure 6.1



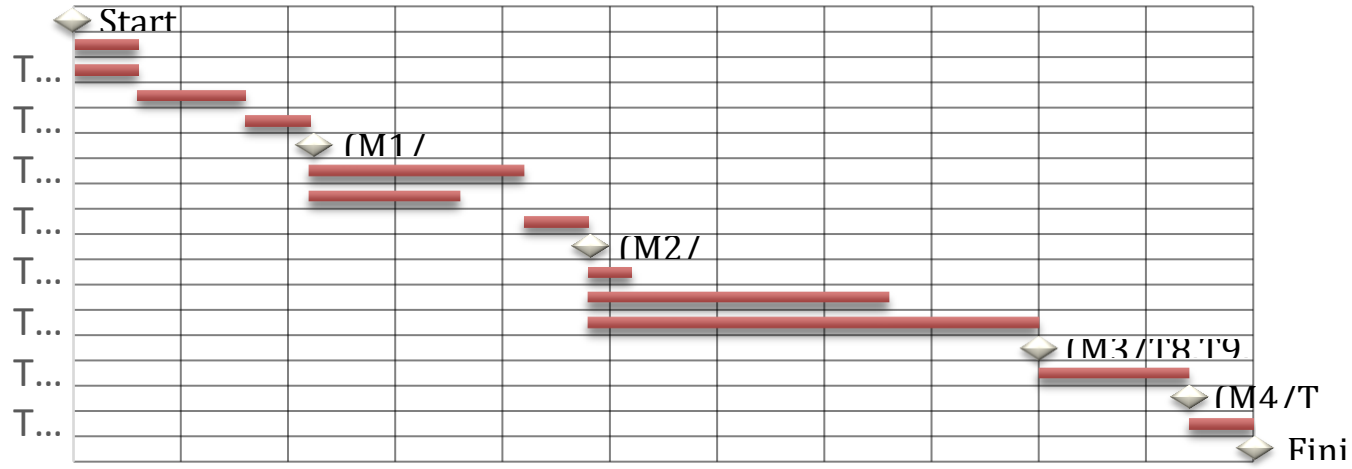


Figure 6.1 : Gantt Chart

The tasks are distributed among project members to make the work done efficiently and effectively. The Task distribution is shown in Table 6.1 and staff allocation is shown graphically in Figure 6.2.

Table 6.1 : Task Distribution

Serial No	Task	Assigned Member
1	T1, T2, T3, T4	Tithi Rani Das
2	T5,T6,T7	Sejuti Saha Peu
3	T8,T9,T10	Salima akhtar Nabila
4	T11	Fahmida Alam
5	T12	Marufa Sultana

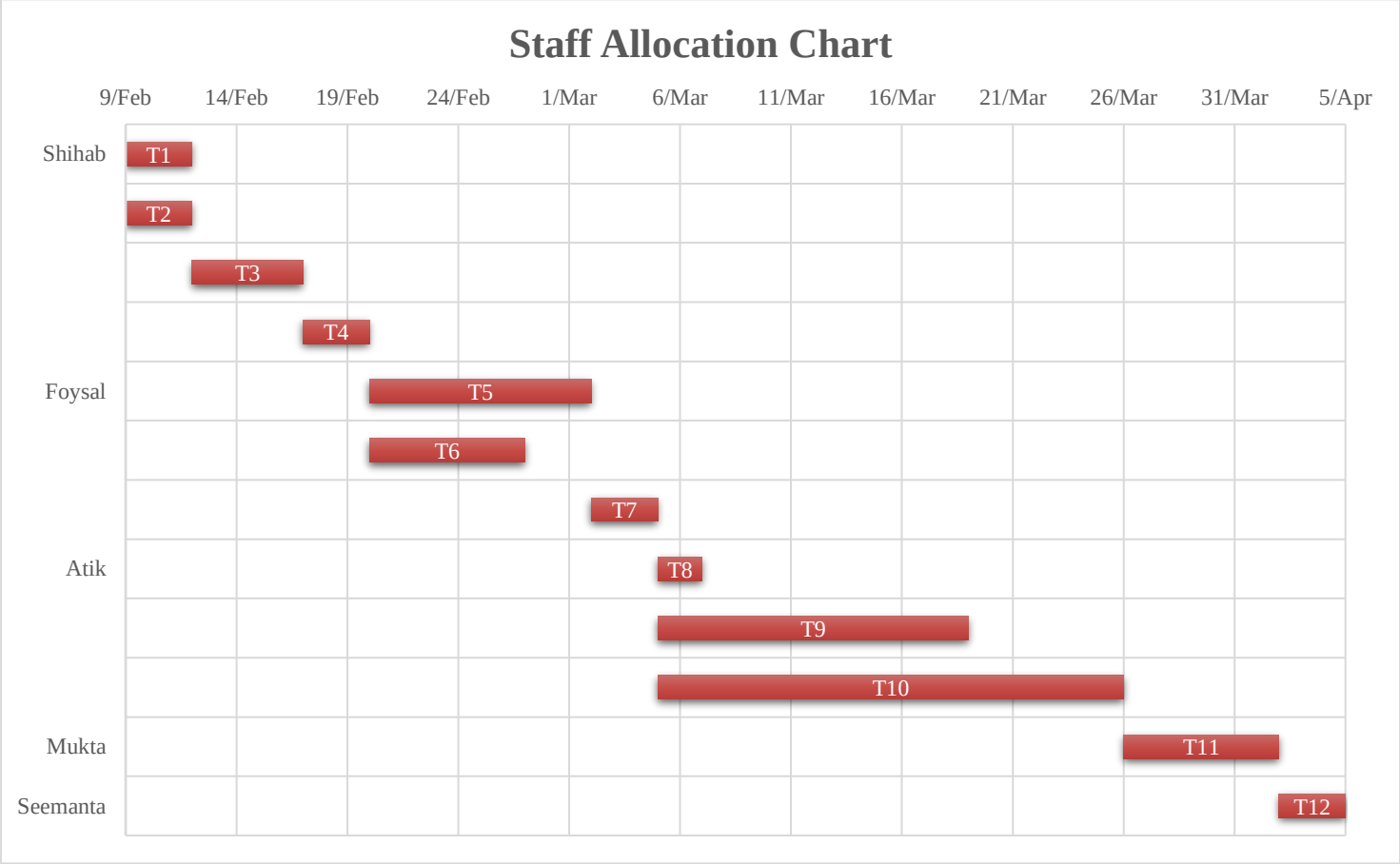


Figure 6.2 : Staff Allocation Chart

7. Monitoring and Reporting Mechanism

Monitoring is the regular observation and recording of activities taking place in a project. It is a process of routinely gathering information on all aspects of the project. To monitor is to check on

how project activities are progressing. It is systematic and purposeful observation. Monitoring also involves giving feedback about the progress of the project to the donors, implementers, and beneficiaries of the project. Monitoring is very important in project planning and implementation as well as risk management. Reporting enables the gathered information to be used in making decisions for improving project performance.

A project manager can monitor the project in avarious way. The project can be monitored in following way:

- Monitoring the progress of the project daily by collecting information about progress, problems, and difficulties.
- Holding meetings weekly and monthly with the project staffs where everyone will show their progress.
- Comparing the project environment with potential risk indicator situations.
- Comparing the performance of the staff with a standard and take necessary action to correct it.

The project staff can report to the project manager as mentioned below:

- The project staff will generate and deliver important documents to the manager.
- The project team will notify the managerofthe completion of the task.
- The staffs will inform and generate a report about the milestones completed.

8. Conclusion

A plan the first step in completing a project successfully. This report has provided all the information about project organization, risk analysis, hardware and software requirements, work breakdown, scheduling, monitoring and report mechanism of the project. All those tasks are so important for the completion of the project. This will help the project staffs to complete the project in time. Finally, we expect that this project to be completed successfully.