Project Plan

Client: Military Institute of Science and Technology

Project Name: MIST Smart Voting System

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Prepared by:

Group-02

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1 Introduction

1.1 Document Purpose

A project plan is a clear project timeline where the tasks, resources, budgets are defined. The purpose of a project plan is the team members can easily divide the work and act accordingly to complete the project which helps to achieve the goal of the project.

1.2 Associated Documents

The content of this document is supported by the Gantt chart, and reports which were generated using Microsoft Project.

2 Project Scope

2.1 Objectives

1. A digital solution of the old analog voting system using Android and IOS app.
2. Saving time and cost for conducting any voting event.
3. Participating and giving votes from anywhere and anytime.
4. Making voting events transparent and secured.
5. Publishing Voting results in less time.

2.2 Success Criteria

1. For Login into the mobile app, the barcode scanner is used. So, the smartphone of the users must have a good quality camera which is a must for the success of our project.

2. A race condition may occur in a voting event where two or more voters may give votes at the same time to the same candidate. So, for accuracy, the software must count votes for each voter which is a must for the success of our project.

3 Deliverables

3.1 To client

The client of the project is the MIST authority. So, as per the requirement, the client will be given a mobile app where they can create voting events, add candidates for the events, set the starting and finishing time of the voting events, add constraints to the users, publish results of the voting events. After some successful testing of the software, the client will be given an estimation time about the project delivery date.

3.2 From client

Feedbacks are taken in every update so that the expectations and the recommendations of the client are matched. The documentation is written frequently for easy understanding of the client-side. For checking accuracy, the clients may participate in the testing procedures. The developer team will support the client for any further technical difficulties and changes and future updates.

4 Project Approach

We have followed agile approach for our project. In the case of the Agile model, the complete app is divided into smaller modules which were treated like independent sub-projects. These sub-projects were handled by different teammates independently, with little-to-no dependencies on each other. Besides, everyone has a clear idea of what their contribution is and the associated resources and deadline, which accelerated the development process. Every developer put their best efforts into completing their part in the mobile app development project, an outcome of which is a more streamlined app development process with faster delivery. Agile methodology provides the facility to manage project easily. It was easy to assign the tasks to different teammates and reduce the dependencies and discussions. Also, we have record of the activities performed on each mini project and in this way, determine if something is missing or not working as per the proposed plan.

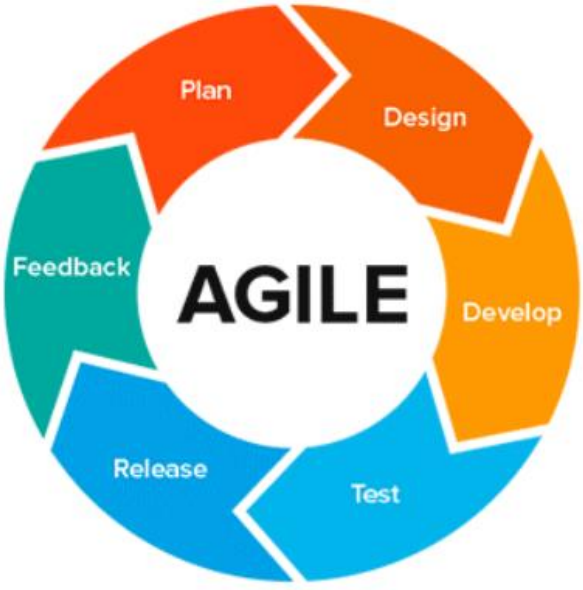

Fig 4.1: Agile Methodology

4.1 Project Team Organization

The project is divided into six parts and distributed among five team members as follows:

Task	**Assigned Group Members**
1. Database design and connection	1. Shahriar Rahman Khan 2. Sharmila Rahman Prithula 3. Zakaria Rahman
2. Barcode and Fingerprint Sensor	1. Md. Rezwan -A- Rownok 2. Fahmida Yasmin Rifat
3. Developing admin part	1. Shahriar Rahman Khan 2. Zakaria Rahman
4. Developing User Part	1. Fahmida Yasmin Rifat 2. Md. Rezwan -A- Rownok 3. Sharmila Rahman Prithula
5. Testing	1. Fahmida Yasmin Rifat 2. Md. Rezwan -A- Rownok 3. Shahriar Rahman Khan 4. Sharmila Rahman Prithula 5. Zakaria Rahman
6. Documentations	1. Fahmida Yasmin Rifat 2. Md. Rezwan -A- rownok 3. Shahriar Rahman Khan 4. Sharmila Rahman Prithula 5. Zakaria Rahman

5 Work Plan

In this section we identify the tasks to undertake the project, and how resources are mapped to these tasks, together with other non-people resources that are needed.

5.1 Work Breakdown Structure

The project work plan is attached to this paper as appendix.

5.2 Resources

The resource distribution of the project is shown in the attached Gantt chart and is attached as appendix.

6 Milestones

The milestones of the project are shown in table 6.1

Milestone number	Title	Forecast date
1	Project Topic Selection	25-jul-2019
2	Database Design Completion	20-feb-2020
3	Integration of Sensors	13-Mar-2020
4	Overall design Completion	2-apr-2020
5	Overall Testing Completion	1-Jan-2021
6	Final Project Showcasing	21-Jan-2021

Table: 6.1

7 Risks, Constraints and Assumptions

7.1 Risks

Risk Id.	Risk Description	Mitigation Plan (what to do to avoid the risk occurring)	Contingency Plan (what to do if the risk occurs)	Impact (what the impact will be to the project if the risk occurs)	Likelihood of occurrence
1	Limited knowledge of a team member in a particular task.	Provide proper documentation to have a clear idea what to do.	Reassign task according to the area expertise.	Poor outcome of the project	Medium
2	Delay in delivery	Strictly Maintaining the completion time for each task.	Assign more member to that particular task.	Client dissatisfaction	Low
3	Failed to collect feedback timely	Showcasing the updates to the client timely and collect feedbacks	Collect all feedbacks of the updates	Poor outcome of the project	Medium
4	Insufficient testing	Emphasize should be given in unit, component and integration testing.	Backtrack to the last workable stage.	Improper output	low

7.2 Constraints

- For fingerprint sensor, Smart phone must be Android 6 supported or above.
- For Barcode Scanning, Smart phone should have a resolution of 1920 x 1080 (2.07 MP)

7.3 Assumptions

- Project Plan is followed properly by every team member.

- Dependencies of the tasks in project schedule are maintained properly.
- Feedbacks of the client are taken after completion of each update.
- Proper Testing has been done for obtaining the desired output

8 Financial Plan

The financial cost of our project is shown below:

No	Equipment name and cost	Quantity	Unit Price (TK)	Total Price (TK)
1	Developers Cost	5	50,000	2,00,000
2	Server Cost	1	10,000/Year	10,000/Year
3	Maintenance cost	1	20,000/Year	20,000/Year
4	Laptop	2	50,000	1,00,000
5	Android Mobile	1	20,000	20,000
6	IOS Mobile	1	40,000	40,000
7	Testing cost	1	50,000	50,000
8	Documentation Cost	2	20,000	40,000
		Total Amount		4,80,000

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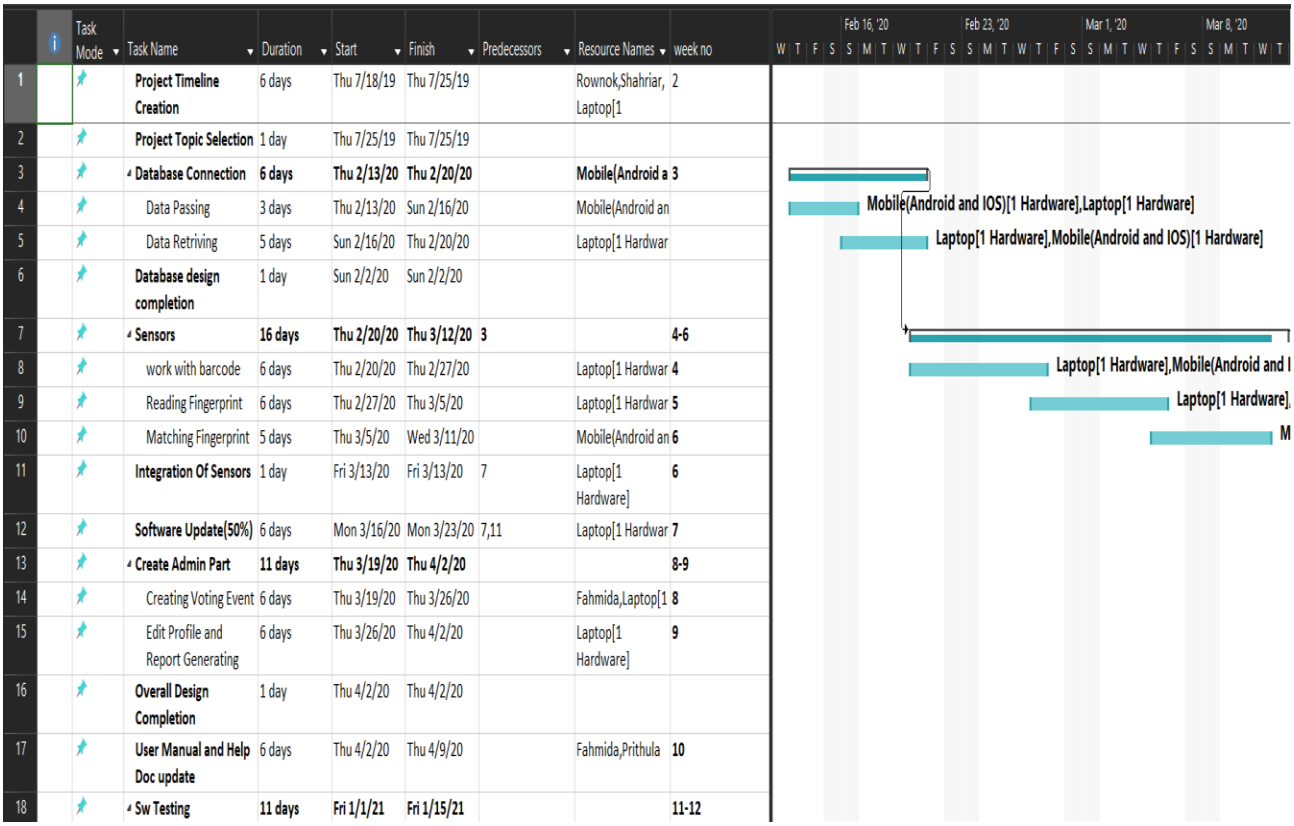
A. Appendix: Resource sheet

Resource Name	Type	Material	Initials	Group	Max.	Std. Rate	Ovt. Rate	Cost/Use	Accrue	Base
Fahmida	Work		F		100%	1,000.00৳/hr	0.00৳/hr	0.00৳	Prorated	Standard
Rownok	Work		R		100%	1,000.00৳/hr	0.00৳/hr	0.00৳	Prorated	Standard
Shahriar	Work		S		100%	1,000.00৳/hr	0.00৳/hr	0.00৳	Prorated	Standard
Prithula	Work		P		100%	1,000.00৳/hr	0.00৳/hr	0.00৳	Prorated	Standard
Zakaria	Work		Z		100%	1,000.00৳/hr	0.00৳/hr	0.00৳	Prorated	Standard
Laptop	Material	Hardware	L			50,000.00৳		0.00৳	Prorated	
Mobile(Android and IOS)	Material	Hardware	M			60,000.00৳		0.00৳	Prorated	

Figure-A: Resource schedule.

B. Appendix: work plan



	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names	week no
1		**Project Timeline Creation**	6 days	Thu 7/18/19	Thu 7/25/19		Rownok,Shahriar, Laptop[1	2
2		**Project Topic Selection**	1 day	Thu 7/25/19	Thu 7/25/19			
3		**Database Connection**	**6 days**	**Thu 2/13/20**	**Thu 2/20/20**		**Mobile(Android a**	**3**
4		Data Passing	3 days	Thu 2/13/20	Sun 2/16/20		Mobile(Android an	
5		Data Retriving	5 days	Sun 2/16/20	Thu 2/20/20		Laptop[1 Hardwar	
6		**Database design completion**	1 day	Sun 2/2/20	Sun 2/2/20			
7		**Sensors**	**16 days**	**Thu 2/20/20**	**Thu 3/12/20**	**3**		**4-6**
8		work with barcode	6 days	Thu 2/20/20	Thu 2/27/20		Laptop[1 Hardwar	**4**
9		Reading Fingerprint	6 days	Thu 2/27/20	Thu 3/5/20		Laptop[1 Hardwar	**5**
10		Matching Fingerprint	5 days	Thu 3/5/20	Wed 3/11/20		Mobile(Android an	**6**
11		**Integration Of Sensors**	1 day	Fri 3/13/20	Fri 3/13/20	7	Laptop[1 Hardware]	**6**
12		**Software Update(50%)**	6 days	Mon 3/16/20	Mon 3/23/20	7,11	Laptop[1 Hardwar	**7**
13		**Create Admin Part**	**11 days**	**Thu 3/19/20**	**Thu 4/2/20**			**8-9**
14		Creating Voting Event	6 days	Thu 3/19/20	Thu 3/26/20		Fahmida,Laptop[1	**8**
15		Edit Profile and Report Generating	6 days	Thu 3/26/20	Thu 4/2/20		Laptop[1 Hardware]	**9**
16		**Overall Design Completion**	1 day	Thu 4/2/20	Thu 4/2/20			
17		**User Manual and Help Doc update**	6 days	Thu 4/2/20	Thu 4/9/20		Fahmida,Prithula	**10**
18		**Sw Testing**	**11 days**	**Fri 1/1/21**	**Fri 1/15/21**			**11-12**

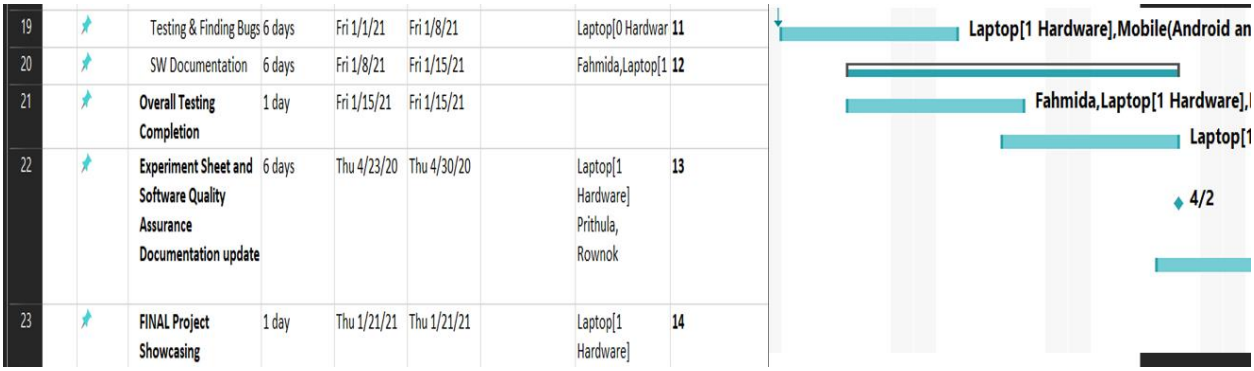


Figure-B: Work Plan schedule.