

AMERICAN INTERNATIONAL UNIVERSITY-BANGLADESH (AIUB)



Report on

Software Development Project Management (SDPM)

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Abstract

Easy Health is a mobile application designed to address the accessibility and efficiency issues in the emergency ambulance service industry in Bangladesh. With a user-friendly interface resembling popular ride-hailing services, Easy Health aims to revolutionize the way people access emergency medical assistance. The app offers two types of ambulance call requests to cater to varying levels of urgency. The first type caters to individuals with critical medical conditions, ensuring rapid emergency response. The second type focuses on less critical situations such as patient transportation. By leveraging technology, Easy Health aims to bridge the gap between ambulance services and people in need, particularly in rural areas. With a simple tap on their mobile devices, users can conveniently request an ambulance, eliminating the challenges faced when contacting emergency services. By providing quick and hassle-free assistance, Easy Health strives to improve the overall healthcare system in Bangladesh and make emergency ambulance services more accessible to those in need.

Team Contributions

The individual specific contribution of each team members are presented in Table 1 below:

Table 1: Project Team Members Contributions

ID	Name	Specific Contribution
20-44176-2	Ferdous, Syeda Sarah	<ol style="list-style-type: none">1. Project Overview2. Software Development Project Management Plan3. Project Objectives4. Project Map5. Project Schedule (Time)6. Budget Estimation (Cost)7. Project Risk Management
19-40134-1	Wahiduzzaman, Faisal	<ol style="list-style-type: none">1. Abstract2. Project Vision and Scope3. Project Deliverable4. Project Resource Planning5. Project Quality Assurance6. Conclusions

1 Project Overview

Easy Health is a mobile-based application that will provide emergency ambulance service in Bangladesh. The delivery of public services, including healthcare, must be done so safely and effectively in the modern world. The ambulance service industry in Bangladesh still needs to develop in these contemporary times, as technology is used primarily in many facets of life. In Bangladesh, it can be challenging for people to contact an ambulance. Although there are more ambulance services in cities than in rural regions, both urban and rural residents struggle with a lack of emergency ambulance services. Easy Health aims to improve emergency ambulance service, allowing people to access emergency ambulance services more conveniently. The system will have an interface where two different ambulance call requests will be available, which will function similarly like Uber. First is for people with significant condition (heart disease, diabetes, respiratory problems, trauma attacks, etc.) that requires quick emergency call, while second is less critical (patient transportation from hospital to home, transferring a disabled patient to hospital for checkup etc.) ambulance call. By offering a quick and hassle-free service, our application aims to make the ambulance service in Bangladesh more accessible and aid those in need.

2 Software Development Project Management Plan

A variety of tasks and activities are included in the software project management plan for the Easy Health mobile application in order to successfully complete the project. The project's objectives, deliverables, and milestones are all described in the plan. The project schedule, resource requirements, team member roles and duties, and project organization are also covered in detail. The approach contains a quality management plan to guarantee that the project deliverables satisfy the necessary standards and a risk management strategy to recognize and reduce any risks. The project management plan also includes a budget plan that lists the financial resources, budget projections, and financial controls for the undertaking. A well-defined software project management plan aids in efficient resource management, risk mitigation, and project completion on schedule, within budget, and to the satisfaction of stakeholders.

3 Project Objective

The objectives of this projects are:

1. Accelerate Emergency Response
2. Elevate Patient Well-being
3. Establish clear communication channels
4. Optimize ambulance dispatch and resource allocation
5. Promote widespread public awareness and adoption
6. Empower User Safety

4 Project Vision (and Scope)

The project aims to create an advanced online ambulance application that recreates emergency response. The goal of the app is to create a user-centric platform that will revolutionize how people obtain medical

care. Users will be able to send out emergency ambulance requests quickly thanks to real-time tracking and communication that shortens response times. The app's vision also includes fostering open communication between users, dispatchers, and medical staff as well as supporting improved patient outcomes through exchanging medical information prior to arrival, optimizing ambulance deployment for effective resource usage. This app's ultimate goal is to provide users with a tool that guarantees prompt, individualized, and effective emergency medical assistance, improving overall public safety and wellbeing.

5 Project Deliverable

A project deliverable is a tangible or intangible outcome or result that is produced as a result of completing a project or a specific project phase. It's something that is provided or "delivered" to the project's stakeholders, clients, or end-users. Deliverables can take various forms and serve different purposes depending on the nature of the project. They represent the concrete results of the project's efforts and are used to measure progress, communicate achievements, and ensure that the project meets its goals.

1. Project requirements document
2. Project management plan documents
3. Design documents
4. Source Code
5. Testing Plan and Test Results
6. User Manual and Training Materials
7. Project management report
8. Maintenance and Support Plan
9. Deployment Plan

6 Project Management Tools

1. ClickUp

7 Project Map

A project map with a development plan outlines the project's scope, objectives, tasks, and dependencies, specifically focusing on the development phase. It details key development milestones, resources allocation, timeline, and stages required to bring the project from concept to completion.

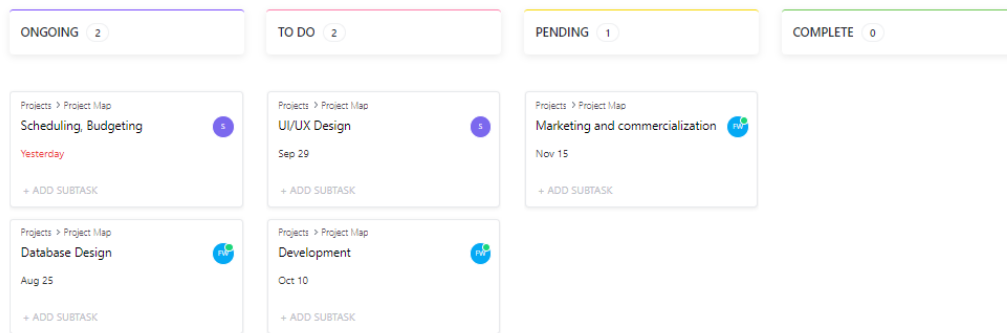


Figure 1: Project Map

8 Project Schedule (Time)

A project gantt chart is a visual tool for planning, controlling, and keeping track of the progress of particular project tasks. It consists of a task list with progress bars for each activity. Beginning on August 1, 2023, this project will last through December 31, 2023. This Gantt chart outlines the subtasks for each milestone and task's due date.

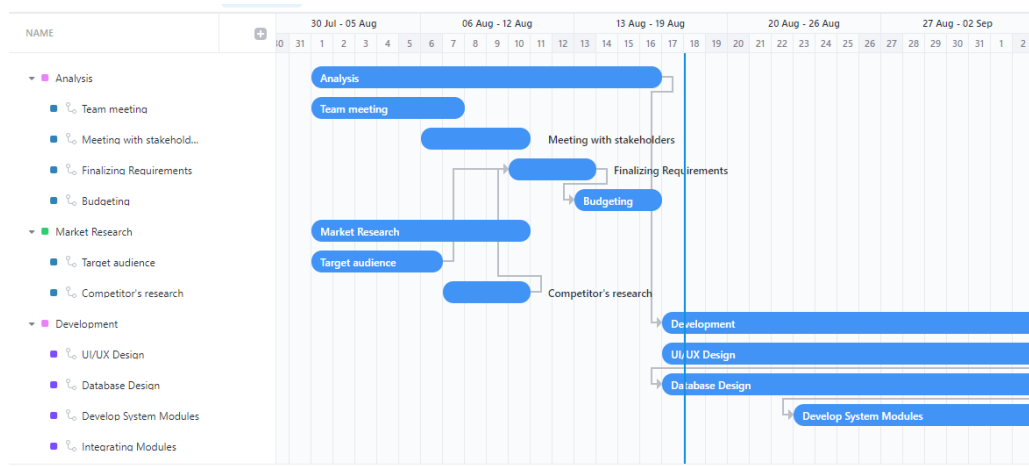


Figure 2: Project Scheduling Part 1

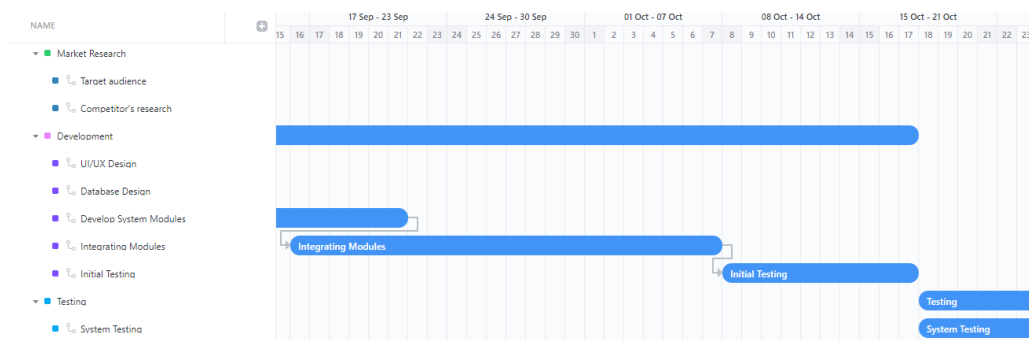


Figure 3: Project Scheduling Part 2

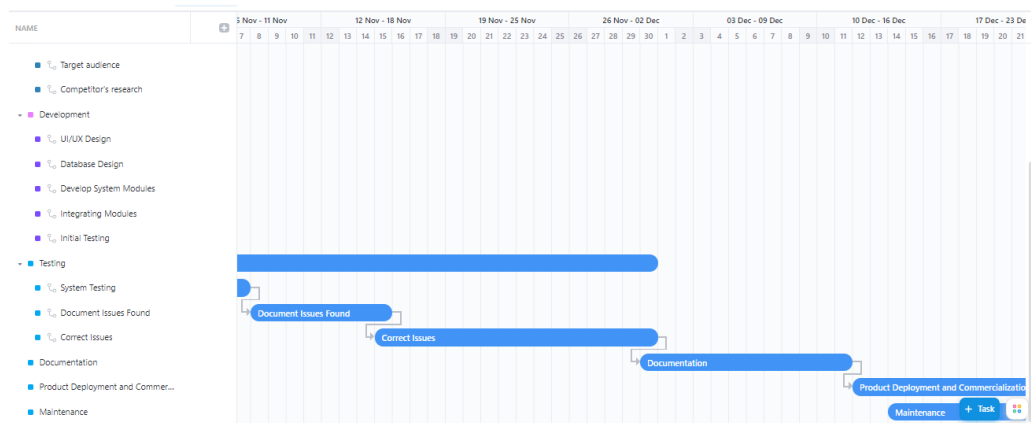


Figure 4: Project Scheduling Part 3

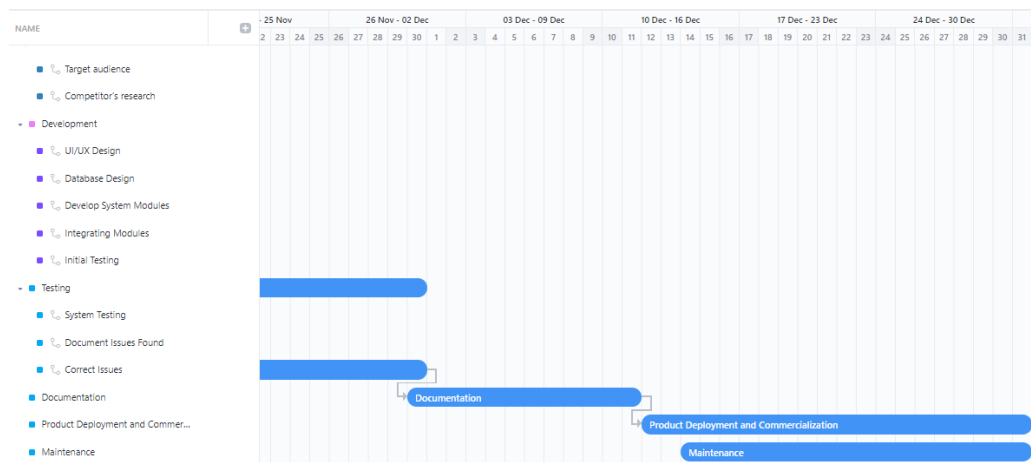


Figure 5: Project Scheduling Part 4

9 Budget Estimation (Cost)

Budgeting is the process of creating a plan for managing and allocating financial resources. Here the total cost is 2,100,000 BDT. This cost includes 20 percent profit. As this is an estimated budget, it includes fixed cost and variable cost. Human resource's cost is fixed but all the other costs are variable cost. An estimated budget provides a clear picture of expected costs, allowing for informed decision-making and ensuring that resources are managed effectively to achieve desired outcomes. It serves as a guideline for financial management, aiding in resource allocation, expense control, and the achievement of financial objectives.

BUDGET	TASKS	WAGES PER MONTH	EMPLOYEE COUNT	TOTAL EXPENSE
Human Resource	6	-	-	-
Backend Developer		40,000 BDT	2	480,000 BDT
Frontend Developer		30,000 BDT	2	360,000 BDT
Project Manager		25,000 BDT	1	150,000 BDT
Database Administrator		40,000 BDT	1	240,000 BDT
Accountant		35,000 BDT	1	210,000 BDT
Tester		40,000 BDT	2	160,000 BDT
Hardware Cost		-	-	60,000 BDT
Transportation Cost		-	-	8,000 BDT
Utilities Cost	3	-	-	-
Rent cost		-	-	60,000 BDT
Electricity bill		-	-	40,000 BDT
Miscellaneous		-	-	15,000 BDT
Maintenance		-	-	10,000 BDT
Total Expense		-	-	1,750,000 BDT
Profit		-	-	350,000 BDT
Total		-	-	2,100,000 BDT

Figure 6: Project Budget Estimation

10 Project Resource Management

Resource management involves the strategic planning, allocation, and utilization of various resources within an organization. This includes financial assets, personnel, equipment, time, and more. Efficient resource management aims to maximize productivity, minimize waste, and achieve organizational goals. It entails identifying needs, assigning resources, monitoring usage, and adapting plans to ensure optimal resource allocation. Effective resource management enhances efficiency, supports project success, and aids in making informed decisions to align resources with priorities.

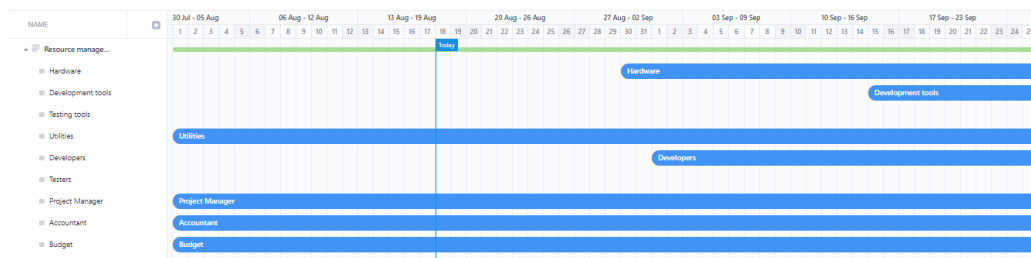


Figure 7: Project Resource Management Part 1

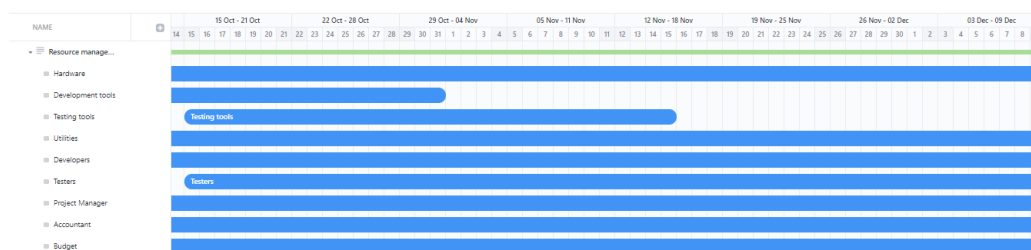


Figure 8: Project Resource Management Part 2

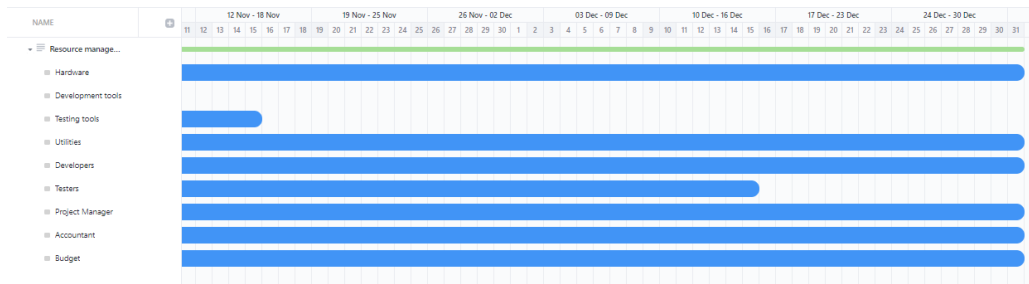


Figure 9: Project Resource Management Part 3

11 Project Risk Management

Risk management is the process of identifying, assessing, and addressing potential uncertainties and hazards that could affect the achievement of objectives or outcomes. It involves systematically analyzing risks, evaluating their potential impact and likelihood, and developing strategies to mitigate, transfer, or accept them.

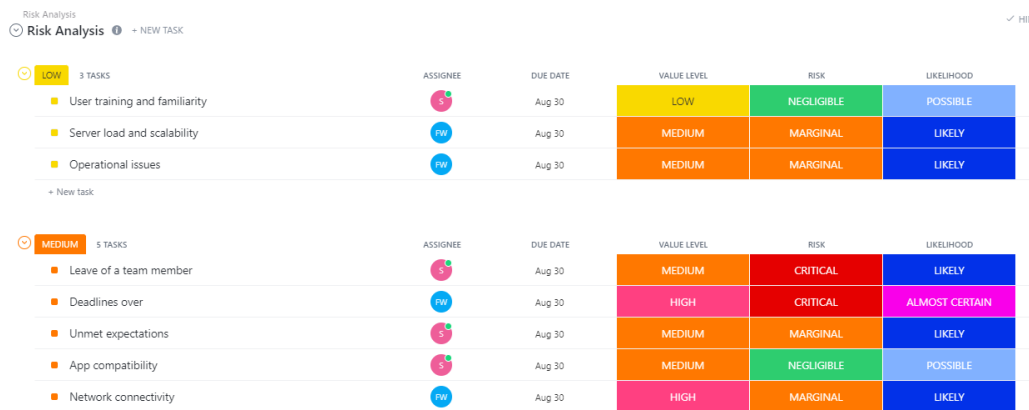


Figure 10: Project Risk Management Part 1



Figure 11: Project Risk Management Part 2

12 Project Quality Assurance

Quality assurance (QA) involves systematic processes and practices to ensure products and services meet established standards. It includes quality control procedures, inspections, and corrective actions to prevent defects and ensure consistent quality. QA aims to enhance customer satisfaction and maintain a strong reputation by delivering reliable and high-quality outcomes. It's vital in various industries to uphold standards and minimize errors.

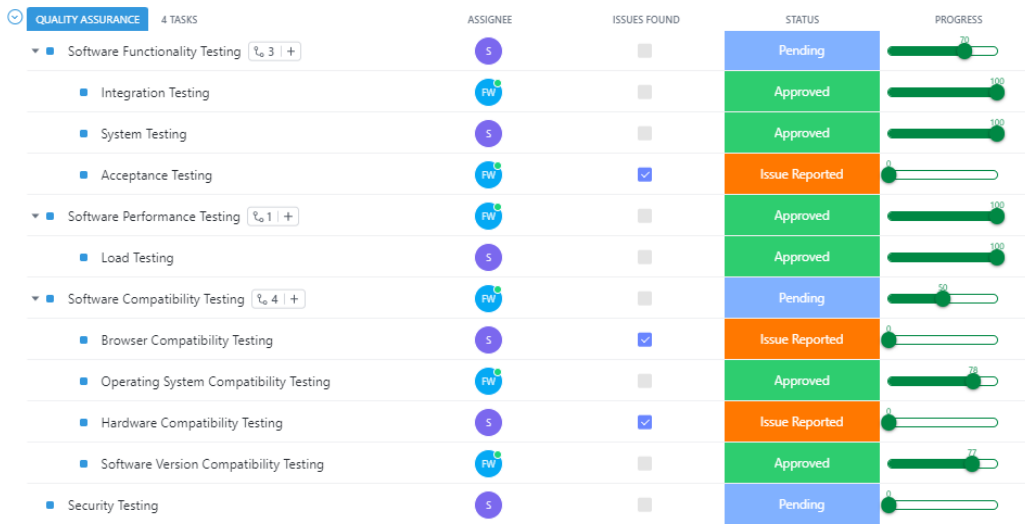


Figure 12: Project Quality Assurance

13 Conclusions

In conclusion, the online ambulance service app is a revolutionary step in the provision of emergency medical care in Bangladesh. The software aims to revolutionize how we respond to emergencies by seamlessly fusing technology and critical aid. Its user-friendly interface makes quick requests for medical assistance possible, and real-time tracking guarantees on-time delivery. Prior sharing of vital medical information enhances the health of patients. The app streamlines emergency responses, increasing user confidence, through optimal ambulance allocation and open communication. This ground-breaking blending of contemporary technology with life-saving potential is poised to play a key role in protecting lives and enhancing public safety.