

SOFTWARE ENGINEERING PROJECT MANAGEMENT

PROFESSOR: *Dr. ALI ABBAS*

PROJECT TITLE: 'HomeDoc'

POST PERFORMANCE ANALYSIS (PPA)

PROJECT TEAM: 10

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1. Overview

1.1 Purpose of PPA

The purpose of this document is to follow up with the progress and analyze the project in terms of the performance and quality. PPA also gives insights to the mistakes and lessons learnt during the project. This gives a chance for the improvement of the project, process and project management.

The goal of PPA is to use this as reference for future projects which highlights the detailed process and formalize the best practices to be used as quality standard.

1.2 Document Scope

This document provides a framework to measure the performance of the following items as by the end of Planning Phase (April,2020).

- Deliverables
- Schedule
- Budget
- Quality
- Recommendations

2. Project Performance

2.1 Performance against Deliverables

This section contains the list of deliverables planned and completed with objectives achieved till April 2020:

Planned Deliverables	Implemented	Summary
Create a Hybrid HomeDoc Mobile Application	Android and iOS Mobile Application Proof of Concept	Achieved basic functionalities that are required in our HomeDoc system.
Implementation of Patient's Dashboard	Mobile application POC with Dashboard containing Day Tracker, Health Stability and Historical Data along with the option for barcode submission of daily dosage.	Gives the user analysis of his health in graphical and tabular representation along with facility to record daily dosages.

Implementation of Doctor's Appointment Tab	POC containing the database of all hospitals and doctors.	Let's patients book appointments for specific dates and times for particular doctor, hospital or care type.
Implementation of Actions Tab	POC implemented with alerts and information	Keeps user aware by giving information with alerts and options to upload reports, medical prescriptions or order them.
High quality project documentation	Build Project Charter and Project Plan and deliver POC	Completed as planned

2.2 Performance against Schedule

Below Listed are the tasks which are completed within the expected time:

Phase 1: Project Planning	Description	Expected	Actual
Project Charter and Project Plan	Documentation of the requirements and the whole process to be followed throughout the development of project. Transform the assumptions into documentation.	Start: January 20	Start: January 23
		End(Charter): January 30	End(Charter): January 29
		End(Plan): March 4	End(Plan): March 4
Proof of concept	Build a creative model of the requirement to make sure the understanding of requirements from customer perspective.	Start: January 30	Start: Feb 2
		End: April 8	End: April 2
Project Presentation and Customer Demo.	Demonstration of the POC along with the presentation to let customer make aware about the approaches used and solutions towards faced challenges.	Start: March 19	Start: March 19
		End: April 2	End: April 9

First Post Performance Analysis (PPA).	The further developments of the project are documented in this stage.	Start: April 2	Start: April 2
		End: April 8	End: April 8

It is worth noted here that there was some delay while initializing the first step which was due to some initialization of the project which is quite normal and has been compensated as the process went smoother as expected which helped in completion of this phase on estimated time.

2.3 Performance against Budget

Now we make a comparison of estimated budget which includes salaries, use of resources etc. with the actual expenditure. The Actual expenditure quite differed from the initially estimated budget as we all know that initial estimates varies with the amount of time taken, resources utilized and these two can vary because of some unexpected circumstances or problems faced during the project development life cycle. Let us make a comparison of estimated cost versus actual cost for different deliverables which were a part of our project cycle. The estimates for these deliverables are as follows –

Estimated Item	Initial estimated cost	Actual cost
<i>Project charter</i>	\$50,000	\$55,000
<i>Project plan</i>	\$ 120,000	\$ 110,000
<i>Proof of Concept</i>	\$200,000	\$ 225,000

2.4 Performance against Quality

- Quality is one of the most significant metrics in order to assess any product or deliverable. Hence quality metric of the product should be delivered as a part of many other deliverables.

- At each stage of project development life cycle, quality is given importance and necessary measures are taken to keep this metric above client's expectation.
- The quality of the product meets the ISO standards.
- We continuously took inputs from clients during each stage of development and improved the project to meet their expectations.

2.5 Recommendations

Here are some recommendations for upcoming phase:

1. Evaluate the presented proof of concept to an actual product analyzing the positive response from the customer (Some changes have been advised) ,which will result in better utilization of resources which have been used while production of POC.
2. Better utilization of resources or addition of resources in terms of analyzing the improvisation required to mitigate the risk of delay.
3. Project is on track and to remain on track, teamwork and effective use of all tools is highly recommended as we are following Agile methodology, so every member of team is equally responsible to improvise more in further phases of project.
4. Regarding the feedback of POC from customer, all the changes they have been requested has already submitted as Change Requests for the project and must be implemented with high priority.

3. Lessons

3.1 Lessons Learnt

The following lessons were learnt during building the project :

1. Team Congruence plays an important role in determining maximum use of project resources.
2. Every Team member's contribution is essential for obtaining the best results with respect to this project.
3. Time management is one of the cornerstones of successful implementation.
4. There is always a variation with respect to the cost, time and resource estimation in comparison to its actual values, so these changes must be accommodated.

3.2 Future Considerations

Our given implementation is highly scalable; hence many more features can be added towards the betterment of the project like :

1. A disease prediction model can be implemented with the help of AI and ML algorithms.
2. Other features like heartbeat of the patient, the tablet log of the patient can be stored in the database.
3. More languages can be added in the application just to make the patient comfortable.
4. Features like face unlock and fingerprint sensor can be used additionally with our application for improving the security of the application.