

Root Cause Analysis on Task Management Feature

Change Requested: The EHR should have a feature that allows users to manage their tasks and be reminded of what tasks need to be accomplished over a period of time.

Why was change Requested?

To understand why change was requested by the clients, the following questions could be asked to perform root cause analysis.

1) Was the software of poor quality?

- Yes, the software did not have an important feature mentioned by the client team about allowing users to manage their duties.

2) Was the software low performance?

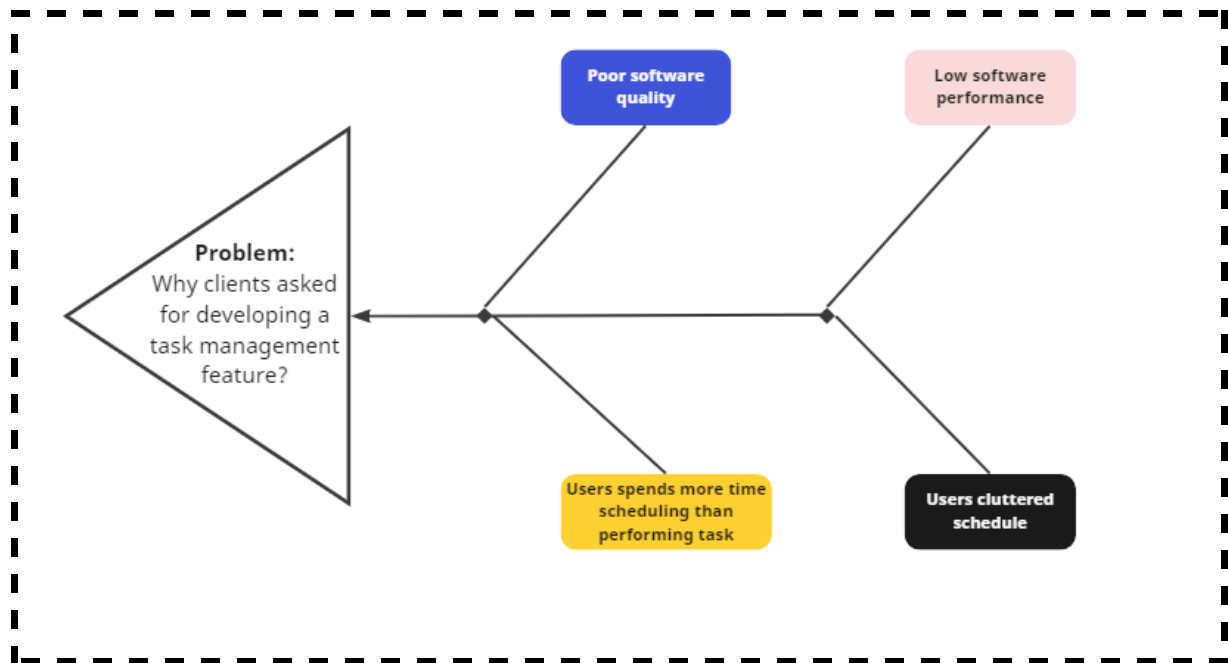
- Yes, the software was not working efficiently since it did not allow users to manage their duties, resulting in a more cluttered schedule for the users.

Based on performing root cause analysis, it could be concluded that the primary reason for why the clients asked for developing the task management feature was to make the software more effective and efficient. The software was of poor quality and had low performance but developing the task management feature could enable users to optimise their efficiency in performing their duties. This feature allows users to prioritise their duties based on the importance of the duty while ensuring that all deadlines were met. This feature could ensure that no duties were missed and high priority duties were completed first.

Imagine that a user was logged in as a doctor and there were two duties that had the same deadline where one task was to check the patient with heart disease and another task was to submit the report of the patient that was previously checked for fever. Then checking the patient with heart disease would be prioritised by the doctor since it requires immediate attention.

Thus, implementing the task management feature mentioned by the client team could enable users to work effectively and efficiently, resulting in improved software quality and optimised performance.

Fishbone Diagram



Goal Question Metric on Root Cause Analysis on Task Management Feature

Goal: Analyse the task management feature for the purpose of improving software quality and optimise performance with respect to the use cases of the users from the viewpoint of the software developers implementing the feature in the context of software evolution.

Topic	Response
Object - What is being examined	Task management feature
Purpose - Why it is being examined	To improve software quality and optimised performance
Focus - Attribute being examined	Use cases of users
Viewpoint - Perspective	Software developer
Environment - Context of scope of examination	Software evolution

Questions:

Q1) How does the quality/effectiveness of the current software change?

Q2) How does the performance/efficiency of the current software change?

Q3) How would this feature impact user satisfaction?

Metrics:

M1)

$$Quality = \frac{\text{total tasks completed by a user within a day with task management feature}}{\text{current total tasks completed by a user within a day}} \times 100\%$$

M2)

$$Performance = \frac{\text{time to make a schedule for a user with task management feature}}{\text{current time spend by a users to make their schedule}} \times 100\%$$

M3)

$$Satisfaction = \frac{\text{user satisfaction with task management feature}}{\text{current user satisfaction}} \times 100\%$$