Problem:

If a user is interested in a specific question, they would want to know if there are any new updates or answers related to it. However, it is a waste of time for the user to check the question every day for updates even when nothing new is posted.

To solve this issue, we can use an **observer design pattern**. When a user creates or answers a question, the question is automatically bookmarked in the user’s profile. Users who are interested in the question can also bookmark it. When new answers are added to the question, the users who have bookmarked the question will receive a notification so they can stay updated.

Justification:

Since a change of state in the question (new answer uploaded) will trigger a notification to multiple users (observers), we can use an observer design pattern. In this problem, the subject is the question while the observers are users who have bookmarked the question.

Design pattern UML:

Diagram

Description automatically generated