1 Use-Case Scenarios

1.1 UC1 : Create A New Account

Scope

    Quiz Application

Level

    User Goal

Actor(s)

    Member

Pre-Condition(s)

1. Actor must have a supported device with active Internet connection.
2. Actor must have the application installed in his/her device.

Post-Condition(s)

1. Actor's account will be created.
2. Database has a record of actor's account details.

Main Scenario

1. Actor enters a ***Username***, a constraint-satisfying ***Password*** and repeats the same password for confirmation in another field.
2. Actor enters first name, last name, e-mail ID, nationality and profession.
   *Actor repeats step 1-2 until a unique **username** is filled or until there is no password mismatch or until the e-mail ID is unique.*
3. System validates the details given by the actor.
4. System adds actor's account details to the database.
5. System takes the actor to the login page.

Alternate Scenario 1

1. Actor experiences network connectivity issues/other system issues.
2. System attempts recovery procedures and does error logging.

3. System flushes the existing related content and reverts the process.
4. System takes actor back to the registration page.

Frequency of Occurrence

Occasional, only one time per user.

1.2 UC2 : Login To An Existing Account

Scope

Quiz Application

Level

User Goal

Actor(s)

Quiz Taker, Quiz Conductor, Administrator

Pre-Condition(s)

1. The actor must have a supported device with an active Internet connection.
2. The actor must have a registered account to login.

Post-Condition(s)

1. Upon successful login, the actor is authorized into the system and shown his/her dashboard based on his/her granted permissions.

Main Scenario

1. Actor enters his/her credentials for authentication.
2. System verifies the credentials and lets the actor into the application, upon successful authentication.
3. System reverts back to home page.

Alternate Scenario 1

1. Actor enters incorrect credentials.
2. System intimates actor with relevant error message.
3. System reverts actor back to login page.

Alternate Scenario 2

1. Actor experiences network connectivity issues/encounters other problems.
2. System attempts recovery procedures and does error logging.
3. System intimates actor with relevant error message.
4. System reverts actor back to login page.

Frequency of Occurrence

Frequent, needed as and when the actor needs to use the application.

1.3 UC3: Create A New Quiz

Scope

Quiz Application

Level

User Goal

Actor(s)

Quiz Conductor

Pre-Condition(s)

1. Actor should be logged in.
2. Actor must be connected to the Internet.

Post-Condition(s)

1. Actor's quiz is uploaded to the database and saved along with the correct responses.
2. System generates a unique code for the quiz, and is intimated to the actor.
3. Actor is returned to the main menu.

Main Scenario

1. Actor chooses quiz preferences, including duration, deadline, number of questions, shuffle, question pooling etc.
2. System stores the preferences for the quiz and proceeds to show the quiz form for the actor to fill out.
3. Actor fills the form for one question and confirms the action.
4. System stores the question along with its options, and clears the form for the next question to be filled.
   Actor repeats steps 3-4 until all the questions are set and stored.
5. Actor confirms the publication of the quiz.
6. System uploads all the quiz related content to the online database.

Alternate Scenario 1

1. Actor cancels the creation of the quiz in between.
2. System flushes the existing content related to the quiz.
3. Actor is intimated that the action has been canceled.
4. System reverts actor to the main menu.

Alternate Scenario 2

1. Actor experiences network connectivity issues/other system issues.
2. System attempts recovery procedures and does error logging.
3. System flushes the existing content related to the quiz.
4. System reverts actor to the main menu.

Frequency of Occurrence

Occasional, as domain understanding dictates that quizzes will not be created as frequently.

1.4 UC4: Take Up A Quiz

Scope

Quiz Application

Level

User Goal

Actor(s)

Quiz Taker

Pre-Condition(s)

1. Actor should be logged in.
2. The quiz must be available.
3. Actor must have the quiz's unique code.
4. Actor must be connected to the Internet.

Post-Condition(s)

1. Actor is intimated with his score.
2. Actor's score and details are updated to the database.
3. Actor is returned to the main menu.

Main Scenario

1. Actor enters the quiz code and confirms the start of his/her attempt. The quiz timer starts on confirmation.
2. Actor is displayed a question with its choices. The actor picks his/her response.
3. Actor moves to the next/previous question.
   Actor repeats steps 2-3 until all questions are attempted, or until the timer expires and the attempt is auto-submitted.
4. Actor's latest answers are saved and considered for evaluation on submission.

Alternate Scenario 1

1. Actor enters an invalid/expired quiz code.
2. Actor is intimated with a relevant error message.
3. System reverts actor to the main menu.

Alternate Scenario 2

1. Actor experiences network connectivity issues/other system issues.
2. System attempts recovery procedures and does error logging.
3. Actor's attempt is not considered.
4. System reverts actor to the main menu.

Frequency of Occurrence

Somewhat frequent, as an actor will probably take up multiple quizzes.

1.5 UC5: View Quiz Status

Scope

Quiz Application

Level

User Goal

Actor(s)

Quiz Conductor

Pre-Condition(s)

1. Actor should be logged in.
2. The quiz must be available.
3. Actor should be the owner of the quiz.
4. Actor must have the unique quiz code.
5. Actor must be connected to the Internet.

Post-Condition(s)

1. Actor is shown a list of quiz taker's details along with their respective scores.
2. Actor is returned to the main menu.

Main Scenario

1. Actor enters the quiz code to view the scores of the quiz takers.
2. System returns the scores of the quiz takers.
3. Actor returns to the main menu.

Alternate Scenario 1

1. Actor enters an invalid/expired quiz code.
2. Actor is intimated with a relevant error message.
3. System reverts actor to the main menu.

Alternate Scenario 2

1. Actor enters a valid quiz ID.
2. System intimidates a warning message, if zero quiz takers attempted the quiz.
3. System reverts actor to the main menu.

Alternate Scenario 3

1. Actor experiences network connectivity issues/other system issues.
2. System attempts recovery procedures and does error logging.
3. System reverts actor to the main menu.

Frequency of Occurrence

Very occasional, as the actor will view quiz status only after the deadline.

1.6 UC6 : Perform Housekeeping

Scope

Quiz Application

Level

User Goal

Actor(s)

Administrator

Pre-Condition(s)

1. Actor should be logged into the system.
2. Actor must be connected to the Internet.

Post-Condition(s)

1. Actor is returned to the main-menu.

Main Scenario

1. Actor chooses quiz/member ID.
2. Actor enters the respective ID.
3. Actor chooses to delete/not delete that ID.
4. Actor confirms his/her decision.

Alternate Scenario 1

1. Actor enters an invalid ID.
2. Actor is intimidated with the error message.
3. System reverts actor to the main menu.

Alternate Scenario 2

1. Actor experiences network connectivity issues/other system issues.
2. System attempts recovery procedures and does error logging.
3. System reverts actor to the main menu.

Frequency of Occurrence

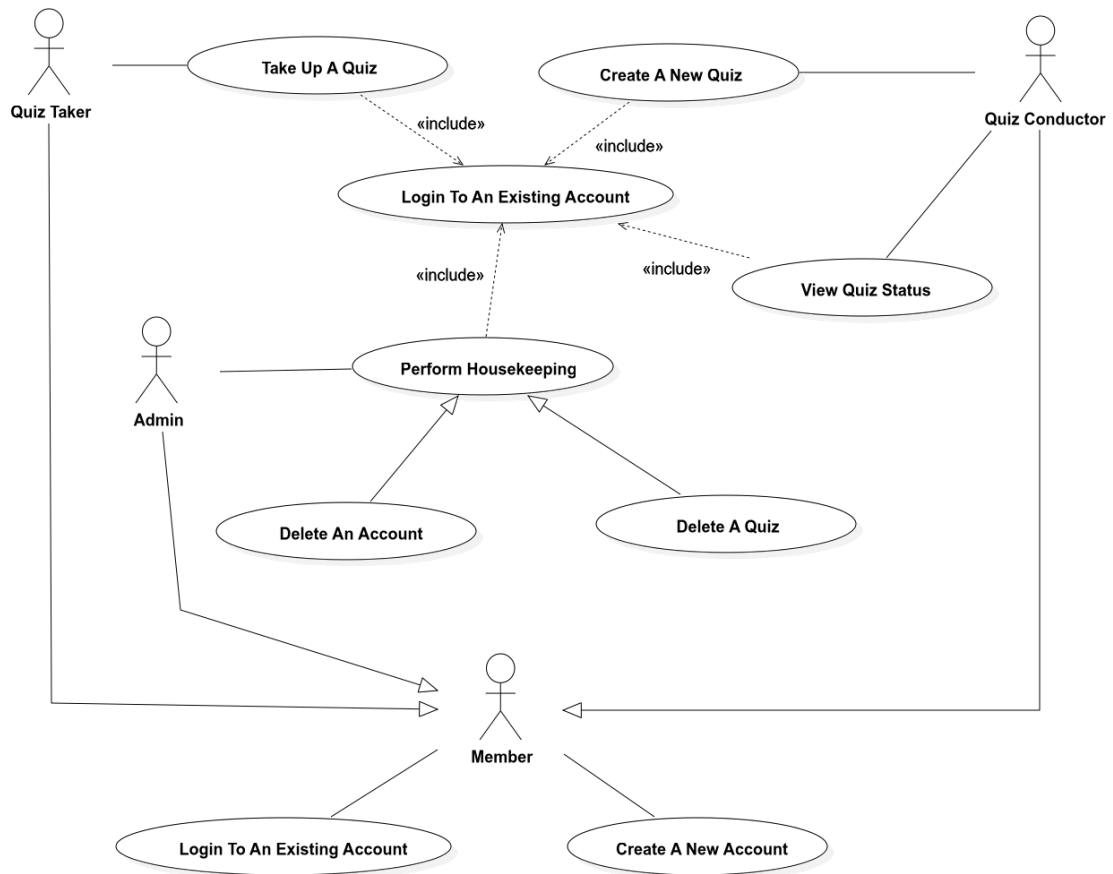Rare, as administrative CRUD activities need to be done only when required.

2 UML Diagram

Figure 2.1: UML Diagram for the Quiz Application