

# Design StackOverflow

Stack Overflow is a question-and-answer website for professional and enthusiast programmers.

## Requirements:

1. Users: They can be admin, moderators, or normal members.
2. Admin can add, delete or block any members.
3. Members can add questions, post answers, upvote/downvote any questions or answers.
4. Moderators can delete any questions or answers.
5. Moderators can undelete any questions or answers if they are already deleted.
6. Members will earn a badge.
7. Tags can be added to any questions.

## Main Actors:

We have 5 main actors:

1. **Admin:** Add/ Delete members.
2. **Guest:** View/search questions.
3. **Members:** All the functions of Guests, Add/Delete their own questions, answers, UpVote/DownVote questions, and answers.
4. **Moderators:** All the functions of Members also can close/delete /undelete any questions and answers.
5. **System:** Assign badges to members and send notifications.

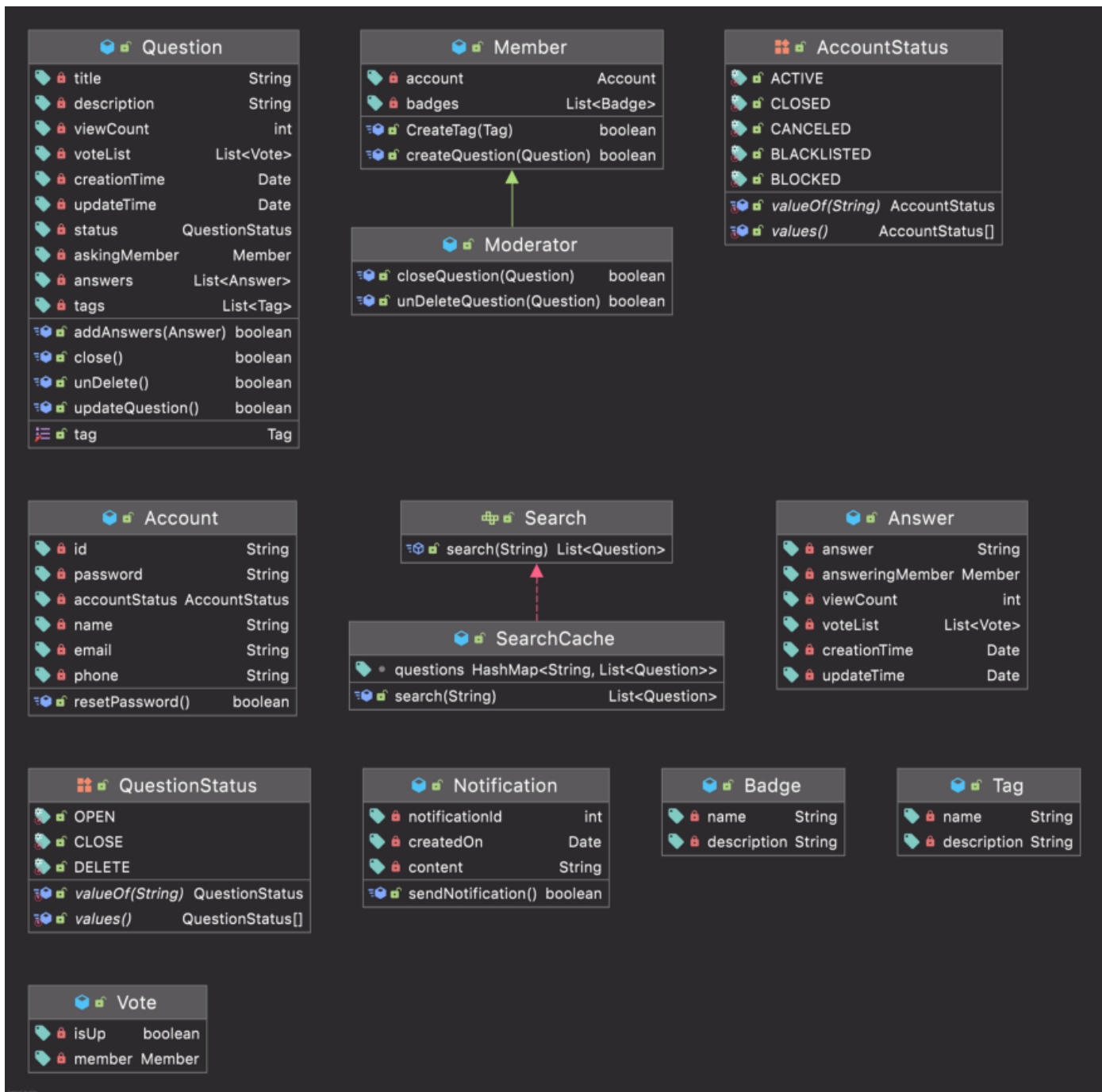
Use Cases for StackOverflow:

1. Create questions and assign tags to them.

2. Search questions.
3. Add/modify answers to questions.
4. Moderators can close, delete, and undelete any question.

## **Classes:**

1. Question
2. Answer
3. Tag
4. Badge
5. Account
6. Notification
7. Vote: To store upvote and downvote



UML Diagram

## Implementation: