

Project Name: Problem Corner (Stack Overflow)

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SRS Document Template

(32) – Problem Corner (Stack Overflow)

Mohamed Samir

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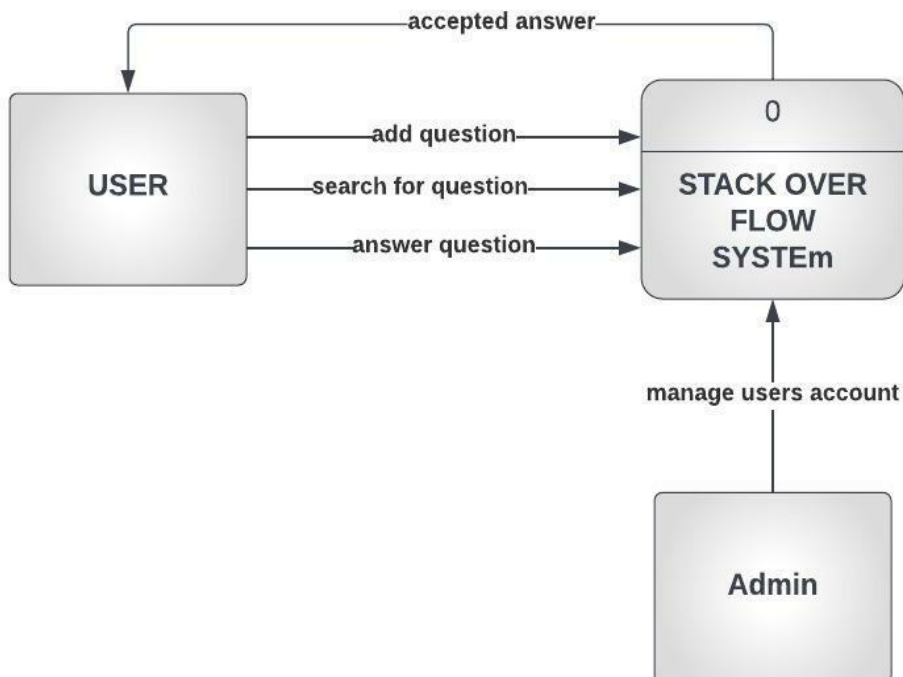
1. Introduction

Stack overflow system where programmers can search for function's solution. The website serves as a platform for users to ask and answer questions, and, through membership and active participation, to vote questions and answers up or down similar to Reddit and edit questions and answers in a fashion similar to a wiki. Stack Overflow's public platform is used by nearly everyone who codes to learn, share their knowledge, collaborate, and build their careers.

It has products and tools help developers and technologists in life and at work. These products include Stack Overflow for Teams, Stack Overflow Advertising.

Stack Overflow for Teams, its core SaaS collaboration product, is helping thousands of companies around the world make the transition to remote work, address business continuity challenges, and undergo digital transformation

2. Context Diagram



3. User Requirements

1. System shall allow User to post question if and only if he has registered in the system.
2. User shall delete his own question and if he is a member can delete any question .
3. Admin shall block any user.
4. Member can edit any question.

4. Functional Requirements

1. Sign up

- Description: System shall allow guests to Sign up into the System and writes some information about himself that the system will need to know it.
- Requirements:
 - 1) First Name
 - 2) Last Name
 - 3) Password
 - 4) Email
- Source input from the guest
- Pre-condition:
 - 1) User is not enrolled in the system
 - 2) The information shall be logical (First Name & Last Name: characters, Email: string end with @gmail.com, Password: string).
- Post-condition: The User can log in now into the system
- Output: a message saying “thanks for your registration + (First name of the guest)”.

2. User Login

- Description: User Login to the system
- Requirements:
 - 1) User Name
 - 2) User Password
- Source: Users will input the information by filling the text boxes
- Pre-condition:
 - 1) User has been enrolled in the system.
 - 2) User is not logged in.

- **Post-condition:** The user earns access to the system
- **Output:** Successful login to the system

3. User Logout

- **Description:** User Logging Out from the system
- **Requirements:** Press Logout Button
- **Source:** The User will just press the logout Button
- **Pre-condition:** User Logout from the system
- **Post-condition:**
 - 1) The actor has no access to the system.
 - 2) The system redirects to login page.
- **Output:** Successful Logout from the system

4. Block User

- **Description:** System shall allow administrator to block users
- **Requirements:**
 - 1) Display all users
 - 2) Click block button for specific user
 - 3) Confirm message is shown
 - 4) Click Ok button
- **Source:** The administrator
- **Pre-condition:** User has privilege to block users
- **Post-condition:**
 - 1) Blocked user cannot access the system
 - 2) If user already logged in, system shall log out the user from system
- **Output:** a message saying "The user has successfully blocked"

5. Edit User Profile

- **Description:** The system shall allow the user to edit his information
- **Requirements:**
 - 1) Open Profile page
 - 2) Click edit button
 - 3) Enter new profile information (Name, Password, Phone Number, Email)

- Source: User will enter the new profile information
- Pre-condition: User has logged in
- Post-condition: User information has been edited
- Output: Your profile information has been successfully edited

6. Post Question

- Description: System shall allow user to Post Questions
- Requirements:
 - 1) Click Add New Question button
 - 2) User Enter Question title
 - 3) User Enter Question body
 - 4) Click Add button
- Source: User will input the Question information
- Pre-condition: User has logged in
- Post-condition: New event has been added
- Output: a message saying "New Question has been successfully added"

7. Add Answer/Comment

- Description: System shall allow user to add New Answer/ Comment
- Requirements:
 - 1) Click Add button
 - 2) Add New Answer/ Comment for Your selected Question
- Source: User will input the information
- Pre-condition: User has logged in
- Post-condition: New Answer/ Comment has been added
- Output: a message saying "New Answer/ Comment has been added successfully"

8. Edit Question

- Description: The system shall allow user to edit event
- Requirements:
 - 1) Select Your Question
 - 2) Press Edit Button
- Source: User will edit the Question information and enter new information

- Pre-condition:
 - 1) User has logged in
 - 2) User can only edit his Questions
- Post-condition: The Question has been edited
- Output: a message saying "The Question has been successfully edited"

9. Search for Questions

- Description: System shall allow user Search for Question (Search by keyword)
- Requirements:
 - 1) Enter keyword in search input
 - 2) Click search button
- Source: The user will enter keyword in search input
- Pre-condition: User has logged in
- Post-condition: System display list of Questions that contain the keyword
- Output: List of Questions

10. Join To Group

- Description: System shall allow user to join to Groups
- Requirements: Press Join Group Button
- Source: The user will select the group that will be joined
- Pre-condition: User has logged in
- Post-condition: User joined to new group
- Output: a message saying " You successfully joined to this group"

11. Create Group

- Description: System shall allow user to Create Groups
- Requirements:
 - 1) Press Create Group Button
 - 2) Enter Group Information (Group Name, Group Description, etc...)
 - 3) Click Create Button
- Source: The User
- Pre-condition: User has logged in
- Post-condition: new group has been created

- **Output:** a message saying” Group has been successfully created”

5. Non-Functional Requirements

Performance requirements:

Response time:

Although most questions on Stack Overflow are answered in less than an hour, we observe that about 30% of the questions which are not answered within an hour have a response time of more than a day.

Security:

Requires the use of HTTPS in order for clients to communicate with the site.

Reliability: it should not be relied upon as a trustworthy citable bibliography source for academic work.

If there is a wrong login, the system will alert you to re-login or modify the basic user data if the information has been forgotten.

Usability:

- The system is simple and easy to understand and work with.
- Users will be able to find answers to questions easily by searching for them by words or by tags.
- Users can post their question, and easily edit it after posting.

Performance:

- System load time should be no more than 4 seconds for users.
- Each page should load within 2 seconds.
- A quick and responsive browsing experience really improves the usability of the site.

Programming language:

Stack Overflow is written in C# using the ASP.NET MVC (Model–View–Controller) framework, and Microsoft SQL Server for the database and the Dapper object-relational mapper used for data access.

Scalability:

The system should be designed to deal with the increasing use and any size of data without errors.

The ability of a system to use additional resources to achieve increased capacity or throughput.

Recoverability:

In the event that the system crashes, the system shall be returned to full operations in 48 hours from the beginning of the crash.

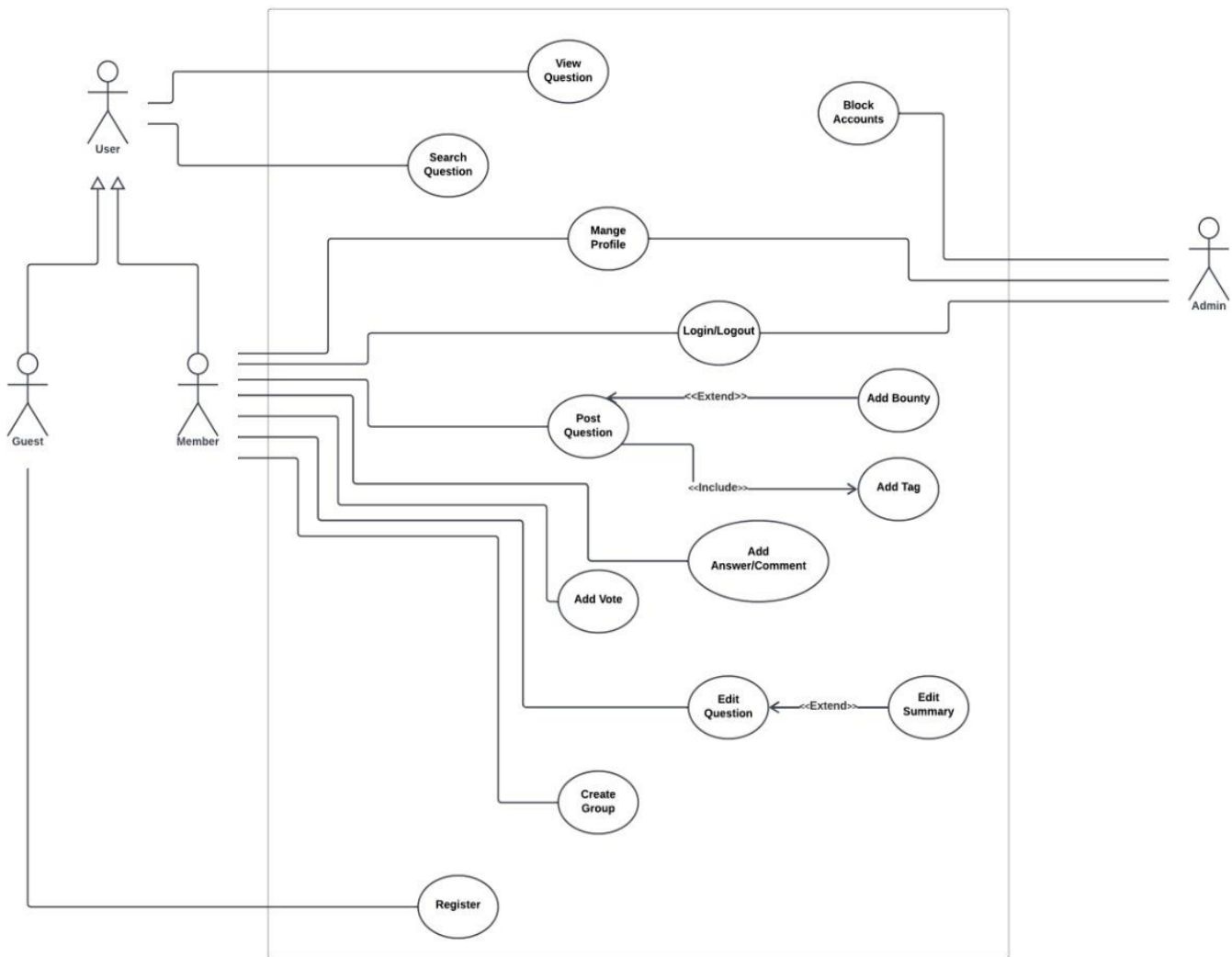
Access Control:

The system shall maintain unique username and password for every person who will use the system.

The system shall allow for system administrator roles.

Efficiency: It is very useful for the development point of view, 40 to 50% developer in worldwide are depending upon stack Overflow.

➤ Use Case Diagram:



➤ Sequence Diagram:

