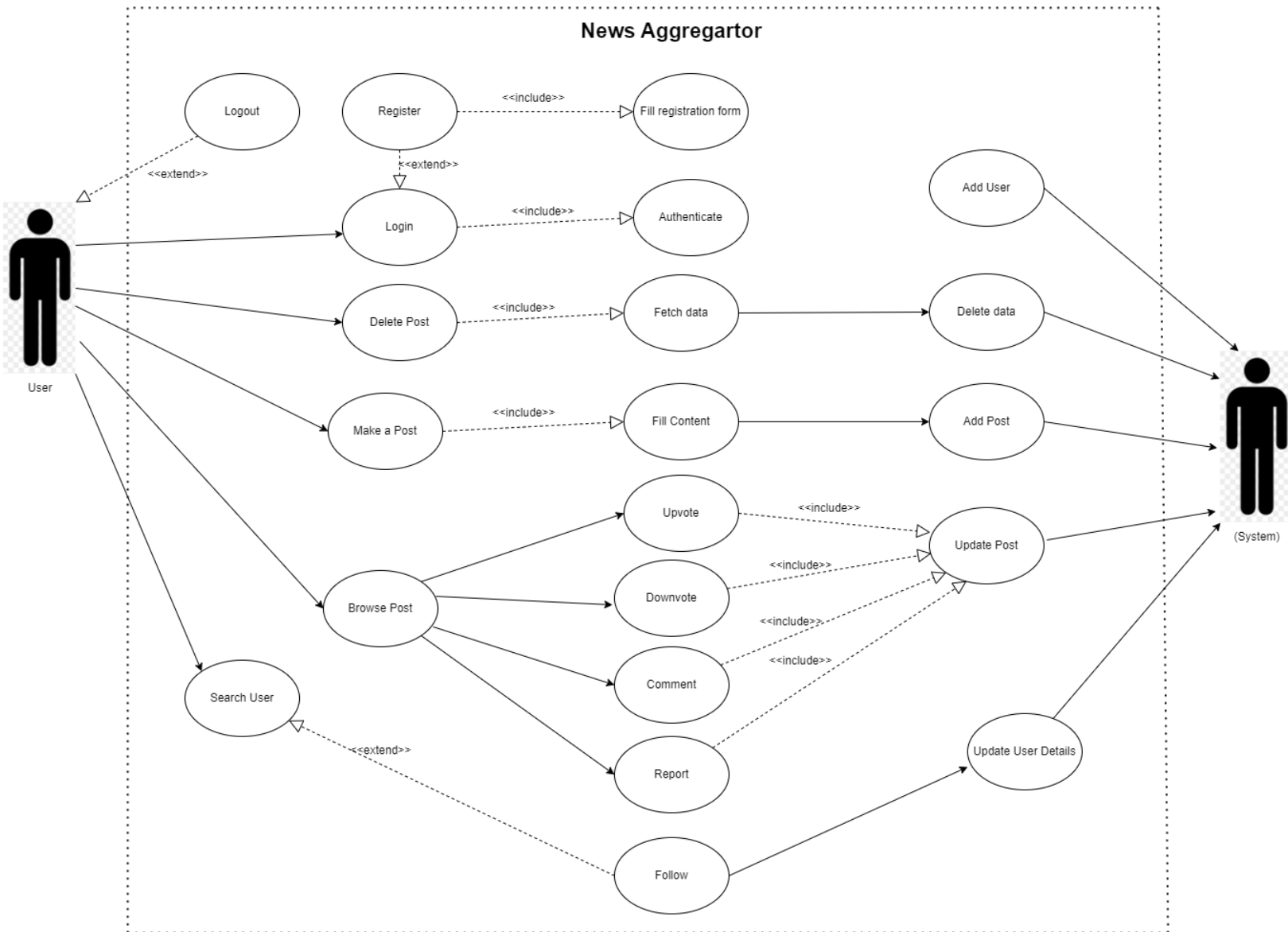# IT314 - Software Engineering
Lab-3

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Use case Diagram

News Aggregartor

Logout

Register — <<include>> → Fill registration form

<<extend>>

Login — <<include>> → Authenticate

Add User

Delete Post — <<include>> → Fetch data

Delete data

Make a Post — <<include>> → Fill Content

Add Post

Browse Post

Upvote — <<include>> → Update Post

Downvote — <<include>> →

Comment — <<include>> →

Report — <<include>> →

Search User

<<extend>>

Follow — Update User Details

User

(System)

Use case description

Identifier: UC1
Name: Login/Register new user
Primary Actor: User
Secondary Actor: System
Goal: To login into a news aggregator website with an existing account or register as a new user.

Precondition:

- User has access to a device with a proper internet connection.
- The News Aggregator website is up and running and is accessible by the user.

Post Condition:

- The User is either logged or registered in the website and now can access the features of News Aggregator.

Main Flow:

1. The user opens the News Aggregator Website and lands on the login page.
2. If the user has an existing account, the user enters its username and password and clicks on the "login" button.
3. The system verifies the user's credentials.

Alternative flow:

2a.1: If the user does not have an existing account, the user can click on "Create New Account" button.
2a.2: User fills up the registration forms.
2a.3: Systems add the data of the user in the database and create a new profile from him.
3a: The user will be informed that no such account with such a username exists if the system cannot find the username in its database.
3b: If the user enters an incorrect password then the system displays an error message and prompts the user to re-enter their credentials.

Identifier: UC2
Name: Create/Make a new Post
Primary Actors: User
Secondary actor: System
Goal: To create or make a new post.

Pre condition:

- The user must be registered on the website.
- The user must be logged in on the website.

Post condition: The user will be able to post the news and it would be made visible to other users who can upvote, downvote or comment on it.

Main flow:

1. User selects the option to create a new post.
2. User is presented with a form where it will typically add any links , images and content about the post
3. User fills the form successfully.

Alternate Flow:

2a. If the user leaves required fields blank , the system presents an error message indicating that required fields must be filled out.

Identifier: UC3
Name: Upvote
Actors: User
Secondary actor: System
Goal: To upvote on a post or comment.

Pre conditions:

- The user must be registered on the website
- The user must be logged in to the website.
- The post or comment that the user wants to upvote should exist on the system

Post condition: The user has upvoted the post/comment according to the system. If the user had previously downvoted the post/comment then that downvote is removed. The upvote button for the post or comment becomes highlighted and the downvote button if it was previously highlighted now becomes unhighlighted.

Main flow

1. The user moves the mouse to the upvote button near the post or comment that he wants to upvote.
2. User clicks the upvote option once.
3. An update query is sent to the database with the new upvotes and downvotes value for the post /comment.

Alternative flow

3a. The upvote button does not become highlighted. Refresh the page and try again.

Identifier: UC4
Name: Downvote
Actors: User
Secondary user: System
Goal: To downvote on a post or comment.

Pre conditions:

● The user must be registered on the website.
● The user must be logged in to the website.
● The post or comment that the user wants to downvote should exist on the system.

Post condition: The user has downvoted the post/comment according to the system. If the user had previously upvoted the post/comment then that upvote is removed. The downvote button for the post or comment becomes highlighted and the upvote button if it was previously highlighted now becomes unhighlighted.

Main flow:

1. The user moves the mouse to the downvote button near the post or comment that he wants to downvote.
2. User clicks the downvote option once.
3. An update query is sent to the database with the new downvotes and upvotes value for the post /comment.

Alternative flow:

3a. The downvote button does not become highlighted. Refresh the page and click try again.

Identifier: UC5
Name: Comment
Actors: User
Secondary actor: System
Goal: To comment under a post or comment.

Pre condition:

- The user must be registered on the website.
- The user must be logged in on the website.
- There should be a post or comment in the system under which the user wants to add his/her comment.

Post condition: That comment will be visible to all the users under that particular post or comment.

Main flow:

User clicks on the comment button under a particular post or comment.
When a user clicks on a comment button, the comment box will appear.
Inside that white space users can write something.
That written data will be sent to the database when the user hits the send button.

Alternate Flow:

1a. Comment button is not active. Refresh the page and click the comment button again.
2a. Comment box won't appear. Refresh the page and do the 1st step again.
4a. Send button is not active then refreshes the page and does all the steps from starting.
4b. The comment doesn't appear under the post or comment. Refresh the page if it still won't appear then repeat the steps.

Identifier: UC6
Name: Report any Post
Actors: User
Goal: Report a post to the system.

Pre condition:

- The user must be registered on the website.
- The user must be logged in on the website.
- There should be a post in the database which the user wants to report to the system.

Post condition:

● Post will be reported as inappropriate to the system.

Main flow:

1. The user takes his/her cursor near the report as an inappropriate button.
2. User clicks on the report as an inappropriate button.
3. A query will be sent to the system which will show that particular post has been reported as inappropriate.

Alternate Flow:

3a. Report button is not active then refresh the page then try to click the report button again.

Identifier: UC7
Name: Search User
Actor: User
Secondary actor: System
Goal: To find specific user and its information

Preconditions:

● The user must be registered on the website.
● The user must be logged in on the website.

Post-conditions:

● If the user is already registered then the system will give access to perform necessary actions, such as upvoting, downvoting, commenting and sharing that post.
● The user can initiate another search if needed.

Main flow:

1. The user accesses the search user feature in the system.
2. The system represents a search bar to the user.
3. The user enters the required search criteria, such as name, username, email, ID, etc.
4. The system searches the database for the specified search criteria.
5. The system presents the search result in a list format.
6. The user selects the desired user from the search results list.

7. The system displays the selected user's profile which contains the activities like posts created by the user, upvotes, downvotes and comments on posts made by the user and posts shared by the user.

Alternative flow:

3a. If the search criteria do not match any registered user in the system, the system displays a message indicating that no results were found.

3b. If the search criteria entered by the user are invalid, the system displays an error message and prompts the user to enter valid search criteria.

Identifier: UC8
Name: Delete a Post
Actors: User
Goal: Delete the particular post from the system.

Pre condition:

- The user must be registered on the website.
- The user must be logged in on the website.
- There should be a post in the database which the user wants to delete from the system.

Post condition:

- Post will be deleted from the system and will not be visible to any users.

Main flow:
1. User clicks on the My Profile button.
2. Profile will be visible to the user with his/her posts.
3. User can click on the delete button under any of these posts.
4. That post will be deleted from the system and will not be visible to any user.

Alternate Flow:
2a. The My Profile button is inactive. Refresh the page and try again.
4a. Delete button is inactive, then refresh the page and try to click on the delete button again.
4b. Post is still visible to the users, then do all the steps again.

Identifier: UC9
Name: Logout
Actors: User
Goal: Logout from the system.

Pre condition:

- The user must be logged in on the website.

Post condition:

- User will be logged out from the system.

Main flow:

1. User Click on the "Logout" button.

Non Functional requirements

1. **Consistency**
   The system should be consistent with posts, upvotes, downvotes, comments. It should not be that some comments are visible to some users and not visible to others. It should also not be that the website shows some upvote-downvote value to one user and other values to another user. It is important that a system should be consistent with the data it provides to its users as a post not being visible to some users blocks access of those users to free information. Inconsistent upvote-downvote values can lead to a false impression about a post or comment.

2. **Privacy**
   The system should not give the identity of users who report a post as inappropriate to the post or comment owner or to the general public as this can lead to harassment of that user.

3. **Speed**
   The system should add comments, upvote-downvotes, and posts as quickly as possible. The user should not have to wait long for their upvote-downvote to get reflected, their comment or post to get added or their authentication or registration to complete as this leads to a bad impression of the website and the user might just stop using the website altogether if he/she has is made to wait a long time for back-end operations to complete.

4. **Good UI**

   The UI of the website should be simple and easily understandable; most used options on the website should not be buried under other options. The should be able to deduce just by seeing what each element on the web page does. It the website does not have a good UI then the user might get frustrated finding it hard to do anything on the website.