**Name:** *Sign up*

**Identifier:** *UC1*

**User story:** *US1 – As a guest, I want to sign up so that I can have all of the member’s accessibilities*

**Inputs:**

1. User name.
2. Password.

**Outputs:**

1. Homepage.

**Preconditions:**

1. User name must be unique (that is, no one has used the same user name before).

**Basic courses:**

|  |  |
| --- | --- |
| **Actor:** Guest | **System** |
| 1. Open the Sign up page | 1.1 Display the Sign up page |
| 2. Enter user name and password into the corresponding required boxes |  |
| 3. Submit | 3.1 Check user’s inputs  3.1.1 Check user name’s availability  3.1.1 Check password’s validation  3.2 Redirect user to home page, with user’s account automatically logged in |

**Alternate courses:**

* *Condition 1*: *User name and password are invalid* In step 3, if user name and password inputted by guest are invalid, the system will display an error message “Invalid user name or password”, and prompt guest to choose a different user name / password to register again.

**Post conditions:**

1. User’s new account must be stored in the database.

**Name:** *Sort posts*

**Identifier:** *UC2*

**User story:** *US2 – As a guest / members / moderator / administrator, I want to choose the way posts are arranged in the corresponding thread*

**Inputs:**

1. Way to sort posts.
2. Thread ID.

**Outputs:**

1. Thread page.

**Preconditions:**

1. None.

**Basic courses:**

|  |  |
| --- | --- |
| **Actor:** Guest / User | **System** |
| 1. Open a thread | 1.1 Display all posts in the chosen thread in default order |
| 2. Choose the way to sort the posts | 2.1 Extracting each post’s information  2.2 Get the sorting order that guest / user chose  2.3 Sort and display the post in the corresponding order |

**Alternate courses:**

* *Condition 1*: *Guest / User can choose to arrange the posts in two (or more) specific orders* In step 2, if guest / user has chosen to arrange the posts in two (or more) orders, all the posts will be sorted accordingly, with the high priority orders are considered first (the priority for each sorting method is set by the system).

**Post conditions:**

1. All posts in the thread must be sorted as guest / user wished.

**Name:** *Login / Logout*

**Identifier:** *UC3*

**User story:** *US3 – As a member / moderator / administrator, I want to login /logout*

**Inputs:**

1. User name and password, for Login function.
2. User ID, for Logout function.

**Outputs:**

1. Homepage, after user has logged in successfully.
2. Front page, after user has logged out successfully.

**Preconditions:**

1. User name and password must be valid, for Login function.
2. User has not logged in before, for Login function.
3. User must have already registered the corresponding account before, for Login function.
4. User has already logged in, for Logout function.

**Basic courses:**

|  |  |
| --- | --- |
| **Actor:** User | **System** |
| 1. Choose Logout action | 1.1 Retrieve user object from session  1.2 Erase current user object from session  1.3 Redirect user to the front page |
| 1. Choose Login action | 1.2 Redirect user to Login page  1.3 Prompt for User name and Password |
| 2. Enter user name and password | 2.1 Validate inputs  2.2 Retrieve matching user from database  2.3 Record the result user object to session  2.4 Display successful message  2.5 Redirect user to the homepage |

**Alternate courses:**

* *Condition 1*: *User enters invalid user name and password*  
   In step 2 (for Login action), after validating user’s inputs, the system displays a message warning user “Invalid user name or password” and asks user to login again.

**Post conditions:**

1. User successfully logs in, for Login function.
2. User successfully logs out, for Logout function.

**Name:** *Create new post*

**Identifier:** *UC4*

**User story:** US4 – *As a member / moderator / administrator, I want to create a new post*

**Inputs:**

1. Description for post.
2. User ID.
3. Current Thread object.

**Outputs:**

1. A new post, added into the current thread by the user initiating action.

**Preconditions:**

1. User must log in as a member / moderator / administrator.
2. The current thread is capable to include a new post.
3. User must be in the front page (where all threads and posts are displayed) to create a new post.

**Basic courses:**

|  |  |
| --- | --- |
| **Actor:** *User* | **System** |
| 1. Click ‘Create Post’ button | 1.1 Request description for the post |
| 2. Enter description | 2.1 Create a new post with the given inputs  2.2 Add the created post into the current thread, and store it in the database  2.3 Display message notifying the post has been created successfully  2.4 Redirect user to the new post’s page |

**Alternate courses:**

* *Condition 1:* *The current thread is not able to include anymore posts (out of memory)*  
   In step 2, after user has submitted the description, the system displays the warning message, asks user to do this later, and notifies the system owner about the situation (to upgrade database for threads).
* *Condition 2*: *The description inputted is invalid* In step 2, after user has submitted the description, the system displays a warning message for invalid input, and prompts user for another one.

**Post conditions:**

1. A new post is created and stored in the database. It must also be added to the current thread, and assigned the current user’s ID.

**Name:** *Edit post*

**Identifier:** *UC5*

**User story:** *US5 – As a member / moderator / administrator, I want to edit my own posts*

**Inputs:**

1. User ID.
2. New description for post.
3. Current Post object.

**Outputs:**

1. The post with updated content according to user.

**Preconditions:**

1. User must be authorized to edit the post (that is, user must be the owner of the post).
2. The post must still exist in the database.
3. User must log in as a member / moderator / administrator.
4. User must be in the post page to edit the post.

**Basic courses:**

|  |  |
| --- | --- |
| **Actor:** *User* | **System** |
| 1. Click ‘Edit Post’ button | 1.1 Check user authorization  1.2 Display current content of the post, and request new description for it |
| 2. Enter new description | 2.1 Update the content of the post according to the given input  2.2 Display message notifying that the change has been made successfully  2.3 Refresh the page and display the post with the newly modified content |

**Alternate courses:**

* *Condition 1: User is not authorized to edit the post* In step 1, after user has clicked the ‘Edit Post’ button, the system displays a message warning user that he/she is not allowed to edit this post.
* *Condition 2: The post is not existed in the database (e.g. removed by administrator)* In step 1, after user has clicked the ‘Edit Post’ button, the system displays a message warning user that the post has been removed (e.g. by administrator).

**Post conditions:**

1. The post is modified accordingly in the database.

**Name:** *Post comment*

**Identifier:** *UC6*

**User story:** *US6 – As a member / moderator / administrator, I want to post a new comment*

**Inputs:**

1. Content of the comment.
2. User ID.
3. Current Post object.

**Outputs:**

1. The current post with the new comment added.

**Preconditions:**

1. The post needed to add comment into must exist in the database.
2. User must log in as a member / moderator / administrator.

**Basic courses:**

|  |  |
| --- | --- |
| **Actor:** *User* | **System** |
| 1. Choose and open a post page | 1.1 Display the post page |
| 2. Enter a comment in the text box |  |
| 3. Submit | 3.1 Create a new comment with the given inputs  3.2 Add the comment into the current post, and store the comment in the database  3.3 Display comment’s content in a block |

**Alternate courses:**

* *Condition 1: The current post needed to add comment into had been removed* In step 1, after user has chosen the post, the system displays a message notifying user that the post had been removed.

**Post conditions:**

1. The comment is added into the respective post successfully.
2. The comment is stored in the database successfully.

**Name:** *Edit comment*

**Identifier:** *UC7*

**User story:** *US7 – As a member / moderator / administrator , I want to edit my own comments*

**Inputs:**

1. New content for the comment.
2. User ID.
3. Current comment object.

**Outputs:**

1. The comment with new content updated.

**Preconditions:**

1. The comment to be modified must exist in the database.
2. The post containing the comment must exist in the database.
3. User must log in to the system.
4. User must be the owner of the comment.

**Basic courses:**

|  |  |
| --- | --- |
| **Actor:** User | **System** |
| 1. Choose and open a Post page | 1.1 Display the Post page |
| 2. Choose a comment to edit | 2.1 Check and validate user’s ID  2.2 Display current content of the comment  2.3 Prompt for modified content |
| 3. Enter the modified content of the comment to the display box |  |
| 4. Submit edited comment | 4.1 Update the comment accordingly  4.2 Record the update in the database  4.3 Display the modified comment in the Post page |

**Alternate courses:**

* *Condition 1*: *User is not allowed to edit the comment* In step 2, after checking user’s ID and seeing that this user is not allowed to edit the comment, the system disables the Edit function and displays a warning message: “You are not allowed to modify this comment”.
* *Condition 2*: *The modified content violates the rules* In step 4, after user has submitted the modified content which violates the forum’s rules, the system displays a message warning user: “This content is against the rules of the forum. Please submit another description” and waits for user to input another description.

**Post conditions:**

1. The content of the comment is modified accordingly.
2. The edited comment must be valid and not violate any rules.

**Name:** *Edit profile*

**Identifier:** *UC8*

**User story:** *US8 – As a member / moderator / administrator, I want to edit my own profile*

**Inputs:**

1. User ID.
2. New user name (if any).
3. New password (if any).
4. New profile picture (if any).
5. New profile description (if any).

**Outputs:**

1. Profile with updated content according to user’s inputs.

**Preconditions:**

1. User must be the profile owner.
2. User must have already logged in.
3. User must be in his / her Profile Page to perform Edit profile function.

**Basic courses:**

|  |  |
| --- | --- |
| **Actor:** User | **System** |
| 1. Choose Edit profile function | 1.1 Redirect user to the Edit profile page  1.2 Prompt for inputs |
| 2. Enter new content of attributes that user wants to change | 2.1 Record the inputs  2.2 Retrieve user ID from session  2.3 Perform modifications for the corresponding user based on user ID  2.4 Display successful message  2.5 Redirect user to the Profile page |

**Alternate courses:**

**Post conditions:**

1. The user’s profile is updated accordingly in the database.

**Name:** *Delete members’ comment*

**Identifier:** *UC9*

**User story:** *US9 – As a moderator / administrator, I want to delete other members’ comments if they violated the forum’s regulations*

**Inputs:**

1. User ID (of moderator / administrator).
2. Comment ID.
3. ID of user that posted the comment.
4. Reason to delete the comment.

**Outputs:**

1. Notification mail.

**Preconditions:**

1. User must be a moderator / an administrator. In case of moderator, user must have privilege over the post which contains the comment he / she wants to delete.
2. User must have already logged in.
3. The member’s comment must violate forum’s regulations.
4. The member’s comment and its post must still exist in the database.

**Basic courses:**

|  |  |
| --- | --- |
| **Actor:** Moderator / Administrator | **System** |
| 1. Click ‘Delete comment’ button of the violated comment | 1.1 Retrieve user’s ID and validate his / her authorization to delete the comment.  1.2 [Authorized] Ask moderator / administrator for the reason to delete the comment (list some options to choose) |
| 2. Choose the option specifying the correct reason | 2.1 Record the reason chosen  2.2 Retrieve the selected Comment object, and erase it from its post and the database  2.3 Send a notification message to the owner of the comment, specifying why his / her comment is removed  2.4 Redirect to the current Post page |

Alternate courses:

* *Condition 1*: *Moderator does not have authorization to delete the comment* In step 1, if moderator does not have authorization to delete the selected comment, the system will display a warning message “Permission denied: You do not have privilege to perform this action”.
* *Condition 2*: *The selected comment have already been removed from the database* In step 2, if the selected comment to be deleted has already been removed, the system will notify the moderator / administrator “This comment does not exist”, and reload the Post page to update the list of current existed comments.

**Post conditions:**

1. The comment is removed from the corresponding post and database successfully.
2. The owner of the comment is reported about his / her comment being deleted.

**Name:** *Delete members’ post*

**Identifier:** *UC10*

**User story:** *US10 – As a moderator / administrator, I want to delete other members’ posts if they violated the forum’s regulations*

**Inputs:**

1. User ID (of moderator / administrator).
2. Post ID.
3. ID of user that created the post.
4. Reason the delete the post.

**Outputs:**

1. Notification mail.

**Preconditions:**

1. User must be an administrator, or a moderator that have the authorization in managing the post.
2. User must have already logged in.
3. The post must violate the forum’s regulations.
4. The post must still exist in the database.

**Basic courses:**

|  |  |
| --- | --- |
| **Actor:** Moderator / Administrator | **System** |
| 1. Click ‘Delete post’ button of the violated post | 1.1 Retrieve user’s ID and validate his / her authorization to delete the post.  1.2 [Authorized] Ask moderator / administrator for the reason to delete the post (list some options to choose) |
| 2. Choose the option specifying the correct reason | 2.1 Record the reason chosen  2.2 Retrieve the selected Post object, and erase it from its thread and the database  2.3 Send a notification message to the owner of the post specifying why his / her post is removed  2.4 Redirect to the corresponding Thread page |

**Alternate courses:**

* Condition 1: Moderator does not have authorization to delete the comment  
   In step 1, if moderator does not have authorization to delete the selected post, the system will display a warning message “Permission denied: You do not have privilege to perform this action”.

**Post conditions:**

1. The post is removed successfully from the database.
2. All of the comments in the post are deleted accordingly.
3. The owner of the post is notified about his / her post being deleted.