Subject web application: VotingBS

VotingBS is a web-based social network system that allows users to submit or delete assertions and their supportive arguments or evidences. It also allows users to vote other users' assertions.

VotingBS contains five JSPs. The data (users' information, assertions and corresponding arguments or evidences) are stored in xml files.

Specific requirements

Functional requirements

Use Case Name: login
Use Case ID: VotingBS-1
Actors: Web user
Brief Description: Users log into the system using their username and password.
Pre-Conditions: None.
Main Flow of Events: 1. User enters a username and password combination. 2. User presses the 'Login' button 3. The system validates the user credentials. 4. The system updates the user status to 'Logged in.' 5. The system displays a form where user can enter a new assertion and a list of all existing assertions along with the voting options. The assertions are sorted by the number of positive votes.
Post-Conditions: The status of the user has been changed to 'Logged in.' The system displays an assertion data entry form and a list of all assertions.
Alternative Flows and Exceptions: Alternative 1, Insert Point Step 3-5 If a username and/or a password has not been entered, the system displays an error message indicating a username and a password are required to login to the system. The system displays a login form and all assertions without the voting options. Alternative 2, Insert Point Step 3-5 If the username exists in the system but the system cannot validate the user credentials, it notifies the user about an incorrect username and/or password. The system displays a login form and all assertions without the voting options. Alternative 3, Insert Point Step 3 If the username does not exist in the system, the system stores the user information.
Assumptions: None.

Use Case Name: logout
Use Case ID: VotingBS-2
Actors: Web user
Brief Description: The system allows users to log off the system to avoid unauthorized access.
Pre-Conditions: User has logged in to the system.
Main Flow of Events: 1. User presses the 'Logout' button. 2. The system updates the user status to 'Logged out.' 3. The system displays the login form and a list of assertions without the voting options. The assertions are sorted by the number of positive votes.
Post-Conditions: The status of the user has been changed to 'Logged out.' The system displays the login form and all assertions.
Alternative Flows and Exceptions: None
Assumptions: None.

Use Case Name: voteAssertion
Use Case ID: VotingBS-3
Actors: Web user
Brief Description: The system allows users to vote for other users' assertions. Three voting options are convinced, disagree, and unsure. The system keeps track of the number of each kind of votes.
Pre-Conditions: User has logged into the system. There exists some assertions in the system.
Main Flow of Events: 1. User selects the 'Convinced' voting option. 2. User presses the 'Vote' button 3. The system updates the number 'Convinced' vote of the selected assertion. 4. The system re-sorts all the assertions based on the number of positive votes.
Post-Conditions: The system displays all current assertions
Alternative Flows and Exceptions: Alternative 1, Insert Point Step 1-3 If the user selects the 'Unsure' voting option, the system updates the number 'Unsure' vote of the selected assertions. Alternative 2, Insert Point Step 1-3 If the user selects the 'Disagree' voting option, the system updates the number 'Disagree' vote of the selected assertions.
Assumptions: User cannot vote his/her own assertions.

Use Case Name: addAssertion
Use Case ID: VotingBS-4
Actors: Web user
Brief Description: The system allows users to enter new assertions.
Pre-Conditions: User has logged into the system.
Main Flow of Events: 1. User enters an assertion and its supportive evidence or arguments. 2. User presses the 'Submit your new assertion' button. 3. The system stores an assertion and its arguments along with its owner (username). 4. The system displays a form where user can enter a new assertion and a list of all existing assertions along with the voting options. The assertions are sorted by the number of positive votes.
Post-Conditions: A new assertion is stored in the system. The system displays an assertion data entry form and a list of all assertions.
Alternative Flows and Exceptions: Alternative 1, Insert Point Step 2 If an assertion and/or its evidence is not entered, the system displays an error message requiring the user to enter information before submitting a new assertion into the system.
Assumptions: None.

Use Case Name: deleteAssertion
Use Case ID: VotingBS-5
Actors: Web user
Brief Description: The system allows users to delete their assertions from the system.
Pre-Conditions: User has logged into the system. User has previously entered assertions into the system.
Main Flow of Events: 1. User presses the 'Delete assertion' button. 2. The system removes the selected assertion and its arguments from the system. 3. The system displays a form where user can enter a new assertion and a list of the remaining assertions along with the voting options. The assertions are sorted by the number of positive votes.
Post-Conditions: The selected assertion is removed from the system. The system displays an assertion data entry form and a list of all assertions.
Alternative Flows and Exceptions: None
Assumptions: Users can delete only their own assertions.

Other Requirements

Requirement ID	Requirement
SRS_01	The system shall maintain the usernames throughout the sessions.
SRS_02	The system shall allow users to enter unlimited number of assertions.
SRS_03	The system shall allow users to vote unlimited number of assertions.
SRS_04	The system shall allow multiple votes.
SRS_05	The system shall allow users to vote other users' assertions.
SRS_06	The system shall not allow users to vote their own assertions.
SRS_07	The system shall allow users to delete their own assertions.
SRS_08	The system shall not allow users to delete other users' assertions.
SRS_09	The system shall display assertions along with their owners (usernames).
SRS_10	The system shall display assertions along with three voting options (Convinced, Unsure, and Disagree).
SRS_11	The system shall sort assertions based on the number of positive votes.