

Use Cases

Team-108

Final Project: Communications Server
CS5500: Managing Software Development
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11 December 2018

Use Case #1: Parental Control Option	
Summary	A user can choose to turn on or off Parental Control feature.
Actor	User
Pre-Conditions	User must have valid credentials (username and password) to login and use server.
Priority	Required
Scenario	
1. User connects to the server and is prompted with two options: Registration or Login <ul style="list-style-type: none"> a. If user needs to register, user enters 1, and types in desired username and password. b. If user already has credentials, user enters 2 to login and types in his or her username and password. 	
2.) User then chooses if he or she wants to turn on the Parental Control Feature <ul style="list-style-type: none"> a.) If user wants to turn on parental control, user enters 1. b.) If user wants to turn off parental control, user enters 0. 	
3.) If the user has chosen 1 and then receives a message with inappropriate content, the message will be flagged and the inappropriate content strings will be replaced by ***** and then the modified message will be shown to the user where there will be no vulgar words and all vulgar words would have been replaced by *****.	
Exceptions	
1. To login, user must enter correct username and password to log in, otherwise system will display "Invalid credentials for user {name}."	
2.) User must enter 1 or 0 to turn on or off Parental Control before using the system.	

Use Case #2: User Sends Message	
Summary	A user sends a message
Actor	User
Pre-Conditions	User must have valid credentials (username and password) to login and use server.
Priority	Required
Scenario	
1. User connects to the server and is prompted with two options: Registration or Login <ul style="list-style-type: none"> a.) If user needs to register, user enters 1, and types in desired username and password. b.) If user already has credentials, user enters 2 to login and types in his or her username and password. 	
2.) User then chooses if he or she wants to turn on the Parental Control Feature <ul style="list-style-type: none"> a.) If user wants to turn on parental control, user enters 1. b.) If user wants to turn off parental control, user enters 0. 	
User can send different types of messages: <ul style="list-style-type: none"> a.) Send direct message to another user: <ul style="list-style-type: none"> i. User enters “/message ReceiverUsername-SenderMessage”, where ReceiverUsername is the username of whom the user wants to send the message to, and SenderMessage is the message the user wants to send. b.) Send message a group: <ul style="list-style-type: none"> ii. User enters “/msgGroup GroupName-SenderMessage”, where GroupName is the name of the group the user wants to send the message to, and SenderMessage is the message the user wants to send. c.) Send file: <ul style="list-style-type: none"> iii. User enters “/file Name-File”, where Name is the username of the user or group the user wants to send the message to, and File is the file to be sent. 	
Exceptions	
1. To login, user must enter correct username and password to log in, otherwise system will display “Invalid credentials for user {name}.”	
2.) User must enter correct username for whom he or she wants to send the message to. Otherwise system will display to user a message saying he/she cannot send the message.	

Use Case #3: Create a Group	
Summary	A user creates a group
Actor	User
Pre-Conditions	User must have valid credentials (username and password) to login and use server.
Priority	Required
Scenario	
1. User connects to the server and is prompted with two options: Registration or Login <ul style="list-style-type: none"> a.) If user needs to register, user enters 1, and types in desired username and password. b.) If user already has credentials, user enters 2 to login and types in his/her username and password. 	
2.) User then chooses if he or she wanted to turn on the Parental Control Feature <ul style="list-style-type: none"> a.) If user wants to turn on parental control, user enters 1. b.) If user wants to turn off parental control, user enters 0. 	
User creates a group by entering “/group GroupName”, where GroupName is the name of the group. When user creates a Group, he/she automatically joins the group.	
Exceptions	
1. To login, user must enter correct username and password to log in, otherwise system will display “Invalid credentials for user {name}.”	
2.) User cannot create a group with a group name that already exists. Otherwise, the system will display a message to user saying, “Error : {GroupName} already exists !!”.	

Use Case #4: Join a Group	
Summary	A user joins or adds another user to a group
Actor	User
Pre-Conditions	User must have valid credentials (username and password) to login and use server.
Priority	Required
Scenario	
1. User connects to the server and is prompted with two options: Registration or Login a.) If user needs to register, user enters 1, and types in desired username and password. b.) If user already has credentials, user enters 2 to login and types in his or her username and password.	
2.) User then chooses if he or she wanted to turn on the Parental Control Feature a.) If user wants to turn on parental control, user enters 1. b.) If user wants to turn off parental control, user enters 0.	
User can enter “/gadd UserName” a.) If the user wants to join the group, UserName is the user’s username. b.) If the user wants to add another user to the group, UserName is the username of the other user.	
Exceptions	
1. To login, user must enter correct username and password to log in, otherwise system will display “Invalid credentials for user {name}.”	
2.) User must enter correct username for whom he/she wants to add to the group.	
3.) The group must exist in order for the user to join or add other users.	

Use Case #5: Recall Message	
Summary	A user can recall messages.
Actor	User
Pre-Conditions	User must have valid credentials (username and password) to login and use server.
Priority	Moderate
Scenario	
1. User connects to the server and is prompted with two options: Registration or Login <ul style="list-style-type: none"> a.) If user needs to register, user enters 1, and types in desired username and password. b.) If user already has credentials, user enters 2 to login and types in his or her username and password. 	
2.) User then chooses if he or she wanted to turn on the Parental Control Feature <ul style="list-style-type: none"> a.) If user wants to turn on parental control, user enters 1. b.) If user wants to turn off parental control, user enters 0. 	
User can recall his/her messages: <ul style="list-style-type: none"> a.) If the user wants recall previous message sent: <ul style="list-style-type: none"> i.) User enters “/recall” b.) If the user wants to recall a specific message: <ul style="list-style-type: none"> i.) User enters “/allMsg to display messages with message IDs ii.) User enters specific message ID as “/msgId” 	
Exceptions	
1. To login, user must enter correct username and password to log in, otherwise system will display “Invalid credentials for user {name}.”	
User must enter correct message ID, or error message stating the message does not exist will be shown.	

Use Case #6: Search Messages	
Summary	A user can search messages.
Actor	User
Pre-Conditions	User must have valid credentials (username and password) to login and use server.
Priority	Moderate
Scenario	
1. User connects to the server and is prompted with two options: Registration or Login <ul style="list-style-type: none"> a.) If user needs to register, user enters 1, and types in desired username and password. b.) If user already has credentials, user enters 2 to login and types in his or her username and password. 	
2.) User then chooses if he or she wanted to turn on the Parental Control Feature <ul style="list-style-type: none"> a.) If user wants to turn on parental control, user enters 1. b.) If user wants to turn off parental control, user enters 0. 	
User can search messages with different conditions <ul style="list-style-type: none"> a.) If the user wants to search a message by receiver name: <ul style="list-style-type: none"> i.) User enters “/searchReceiver {receiverUsername}” where receiverUsername is the username of the message receiver. b.) If the user wants to search a message by sender name: <ul style="list-style-type: none"> i.) “/searchSender {SenderUsername}” where SenderUsername is the username of the message sender. c.) If the user wants to search by time/date: <ul style="list-style-type: none"> i.) /timeSearch dd-mm-yyyy@ where dd-mm-yyyy is the pattern of the time. 	
Exceptions	
1. To login, user must enter correct username and password to log in, otherwise system will display “Invalid credentials for user {name}.”	
2.) User must enter correct username of receiver/sender for search conditions.	

Use Case #7: Dup'ing	
Summary	An Agency can read all messages sent and received by its target.
Actor	Agency
Pre-Conditions	Must have subpoena
Priority	Required
Scenario	
1. An Agency connects to the server, and when prompted to enter "1" for registration or "2" for login, the Agency enters "3" instead.	
2.) The Agency will then be prompted to enter the name of the target by either: a.) Entering username of a user. b.) Entering the name of a group.	
Exceptions	
1. Agency must enter "3" to become an Agency	

Use Case #8: Backlogging Messages	
Summary	Queue messages to users who are not online when the message was sent
Actor	User
Pre-Conditions	User must have valid credentials (username and password) to login and use server.
Priority	Moderate
Scenario	

1.) User connects to the server and is prompted with two options: Registration or Login a.) If user needs to register, user enters 1, and types in desired username and password. b.) If user already has credentials, user enters 2 to login and types in his or her username and password.
2.) User then chooses if he or she wanted to turn on the Parental Control Feature a.) If user wants to turn on parental control, user enters 1. b.) If user wants to turn off parental control, user enters 0.
User then receives the list of backlogged messages sorted by the order they were sent to him that he received when he was offline
Exceptions
1.) To login, user must enter correct username and password to log in, otherwise system will display "Invalid credentials for user {name}."

Use Case #9: Turn on/off Logger	
Summary	An Administrator can dynamically turn on and off a logger to view any errors thrown during the runtime of the server.
Actor	Administrator
Pre-Conditions	Must be an Administrator
Priority	Moderate
Scenario	
1. An Administrator connects to the server, and when prompted to enter "1" for registration or "2" for login, the Administrator enters "0" instead.	
2.) The Administrator can enter "/logger on" to turn on the logger, or "/logger off" to turn off the logger.	
Exceptions	
1. Administrator must enter "0" to become an administrator.	

Use Case #10: Update username	
Summary	A user updates his name in the system
Actor	User
Pre-Conditions	User must have valid credentials (username and password) to login and use server.
Priority	Required
Scenario	
1.) User connects to the server and is prompted with two options: Registration or Login a.) If user needs to register, user enters 1, and types in desired username and password. b.) If user already has credentials, user enters 2 to login and types in his/her username and password.	
2.) User then chooses if he or she wanted to turn on the Parental Control Feature a.) If user wants to turn on parental control, user enters 1. b.) If user wants to turn off parental control, user enters 0.	
User updates his name by entering /update NewUserName	
Exceptions	
1.) To login, user must enter correct username and password to log in, otherwise system will display "Invalid credentials for user {name}."	

Use Case #11: Delete User	
Summary	A user deletes his record from system
Actor	User
Pre-Conditions	User must have valid credentials (username and password) to login and use server.
Priority	Required

Scenario	
1.) User connects to the server and is prompted with two options: Registration or Login	<ul style="list-style-type: none"> a.) If user needs to register, user enters 1, and types in desired username and password. b.) If user already has credentials, user enters 2 to login and types in his/her username and password.
2.) User then chooses if he or she wanted to turn on the Parental Control Feature	<ul style="list-style-type: none"> a.) If user wants to turn on parental control, user enters 1. b.) If user wants to turn off parental control, user enters 0.
User deletes his record from the group by entering /delete.	
Exceptions	
1.) To login, user must enter correct username and password to log in, otherwise system will display "Invalid credentials for user {name}."	

Use Case #12: Update Group's name	
Summary	A user updates a group's name
Actor	User
Pre-Conditions	User must have valid credentials (username and password) to login and use server.
Priority	Required
Scenario	
1.) User connects to the server and is prompted with two options: Registration or Login	<ul style="list-style-type: none"> a.) If user needs to register, user enters 1, and types in desired username and password. b.) If user already has credentials, user enters 2 to login and types in his/her username and password.
2.) User then chooses if he or she wanted to turn on the Parental Control Feature	<ul style="list-style-type: none"> a.) If user wants to turn on parental control, user enters 1. b.) If user wants to turn off parental control, user enters 0.

User updates a group's name by entering /gupdate OldGrpName-NewGrpName
Exceptions
1.) To login, user must enter correct username and password to log in, otherwise system will display "Invalid credentials for user {name}."
2.) User cannot rename a group that doesn't exist. Otherwise, the system will display a message to user saying, "Error : {GroupName} doesn't exist !!".

Use Case #13: Delete Group	
Summary	A user deletes a group
Actor	User
Pre-Conditions	User must have valid credentials (username and password) to login and use server.
Priority	Required
Scenario	
1.) User connects to the server and is prompted with two options: Registration or Login a.) If user needs to register, user enters 1, and types in desired username and password. b.) If user already has credentials, user enters 2 to login and types in his/her username and password.	
2.) User then chooses if he or she wanted to turn on the Parental Control Feature a.) If user wants to turn on parental control, user enters 1. b.) If user wants to turn off parental control, user enters 0.	
User deletes a group by entering /grdelete GroupName.	
Exceptions	
1.) To login, user must enter correct username and password to log in, otherwise system will display "Invalid credentials for user {name}."	
2.) User cannot delete a group that doesn't exist. Otherwise, the system will display a message to user saying, "Error : {GroupName} doesn't exist !!".	

Use Case #14: Remove user from Group	
Summary	A user removes a user from a group
Actor	User
Pre-Conditions	User must have valid credentials (username and password) to login and use server.
Priority	Required
Scenario	
1.) User connects to the server and is prompted with two options: Registration or Login a.) If user needs to register, user enters 1, and types in desired username and password. b.) If user already has credentials, user enters 2 to login and types in his/her username and password.	
2.) User then chooses if he or she wanted to turn on the Parental Control Feature a.) If user wants to turn on parental control, user enters 1. b.) If user wants to turn off parental control, user enters 0.	
User removes an user from a group by entering /gdelete username-Groupname	
Exceptions	
1.) To login, user must enter correct username and password to log in, otherwise system will display "Invalid credentials for user {name}."	
2.) If the user tries to delete a user from a group who was not there in the group previously, the system throws an error saying "Error : User not present"	
3) If the user tries to delete a user from a group but the group is not present in the system, the system throws an error saying "Error: Invalid Operation".	

Use Case #15: List users in a Group	
Summary	A user lists users in a group
Actor	User

Pre-Conditions	User must have valid credentials (username and password) to login and use server.
Priority	Required
Scenario	
1.) User connects to the server and is prompted with two options: Registration or Login a.) If user needs to register, user enters 1, and types in desired username and password. b.) If user already has credentials, user enters 2 to login and types in his/her username and password.	
2.) User then chooses if he or she wanted to turn on the Parental Control Feature a.) If user wants to turn on parental control, user enters 1. b.) If user wants to turn off parental control, user enters 0.	
User then types /glist GroupName to list out all users present in that group.	
Exceptions	
1.) To login, user must enter correct username and password to log in, otherwise system will display "Invalid credentials for user {name}."	
2.) If the user enters a group's name that is not in the system, the system responds saying "Error : Invalid Group".	

Use Case #16: Logout from System	
Summary	Logging out from the system
Actor	User
Pre-Conditions	User must have valid credentials (username and password) to login and use server.
Priority	Required
Scenario	
1.)User connects to the server and is prompted with two options: Registration or Login a.) If user needs to register, user enters 1, and types in desired username and password.	

b.) If user already has credentials, user enters 2 to login and types in his/her username and password.
2.) User then chooses if he or she wanted to turn on the Parental Control Feature a.) If user wants to turn on parental control, user enters 1. b.) If user wants to turn off parental control, user enters 0.
User logs out from the system by typing /quit which terminates the user's connection from the server.
Exceptions
1. To login, user must enter correct username and password to log in, otherwise system will display "Invalid credentials for user {name}."