Classes to be tested

Server, User, Supervisor, ChatRoom

Operations to be Tested

1. Server

1. Constructor

* Test case: Invoking the constructor

1. All other functionality tested through its public interface, the Client

2. User

1. Constructor
2. Password changing (setting)
3. Name setting
4. User’s active ChatRoom name getter
5. Name getter
6. Password getter

3. Supervisor

1. Constructor

* Test case: Invoking the constructor and calling the parent class User’s constructor with the input

1. Password changing (setting)

* Test case: Creating a Supervisor object with one password and ensuring the changePassword() method changes the object’s password attribute to the new password. This is checking using the getPassword() method.

1. Name setting

* Test case: Creating a Supervisor object with one name and ensuring the setName() method changes the object’s password attribute to the new name. This is tested using the getName() method.

1. Supervisor’s ChatRoom name getter

* Test case: Creating a Supervisor object and setting its active ChatRoom using the getActiveChatRoom() method. If the attribute changes from null to getActiveChatRoom()’s input, we know the method is working.

1. Name getter

* Test case: Creating a Supervisor object and invoking the getName() method on the object.

1. Password getter

* Test case: Creating a Supervisor object and invoking the getPassword() method on the object.

4. ChatRoom

1. Adding Users/Supervisors
2. Room name getter
3. Lock preventing access by new participants
4. Locking the room
5. Unlocking the room
6. Removing Users/Supervisors
7. Active user count getter
8. Incrementing the active user count
9. Decrementing the active user count

Instructions

1. Download or clone the repo from GitHub.

2. Import the parent folder into Eclipse as a Java Project

3. Open and then right-click the project in Eclipse’s Project Explorer and go to Properties > Java Build Path > Libraries and right-click on Classpath. Then, on the right side of that window, select “Add Library” and then select JUnit > JUnit 5. Click “Finish” in the pop-up window and then “Apply and Close”

4. Double-click the project in the Eclipse File Explorer so that the project directory expands. Double-click “src”. Then, double-click “(default package)” so that all the .java files are displayed in the File Explorer.

5. Right click “AllTests.java” and then select Run As > JUnit Test. The tests will then run.