DatabaseProxy class, which handles user and group chat data management in our server application. We use JUnit4 as a test framework to ensure the correctness and reliability of the implementation method.

We have prepared test methods for various functions of DatabaseProxy, such as putUser, putGroupChat, putMessage, getGroupChats, getCoordinator, getMessage, deleteUserFromGroupChat. These tests are designed to ensure that DatabaseProxy methods behave as expected under various conditions.

Testing has shown that the implemented methods can successfully add and retrieve user data, create and manage group chats, send and receive messages, and update and delete user information as needed. For example, the putUser method is tested to verify its ability to add a new user and return its information. The test case shows that the method correctly identifies new and existing users and returns the appropriate information.

Likewise, the ability of the putGroupChat method to create a new group chat and assign a moderator is tested. The test results confirmed the successful creation of group chats and moderator assignments. Other methods, such as getMessage, were also tested to ensure that users could send and receive messages in the group chat, and update the message status accordingly.

Test results show that the DatabaseProxy class works as expected, providing robust and reliable data management for our server application.