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CS 401 Software Engineering

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Junit Testing Plan for Client Class

Since we are moving towards the implementation of our final project regarding a faster and efficient toll system that makes commuters life better, we already have some skeleton with the essential functions and methods for the classes to work. However, like any software project, we need to make sure that our system is tested to the point that when we pitch to potential clients, we know that our system will work in any situation presented.

The project also has two other members working in different classes. So, when we decided to plan to test, we made sure that every level is checked so that each feature is working as intended.

The client will have the very first interaction with the system, whether a web browser or a mobile application. Based on the requirement document and how the order will be presented to clients here are some test cases that might impact client-server connection if not implemented correctly:

- Test 1: userId's should be at least 6 characters long.
- Test 2: userId's should only have alphabets and integer numbers. No special characters.
- Test 3: passwords should be at least 8 characters long.
- Test 4: within the character's length, passwords should be checked for one or more uppercase, lowercase, or integers.
- Test 5: passwords should be check for only one unique character define within a specific list.
- Test 6: device check, the system should not allow users from a new device to log in before checking with userId's and passwords twice.
- Test 7: users can only edit only after re-entering the password. The system should check the password with the database and then only allow it to edit.
- Test 8: The system should check for account status and make sure if the user is registered or not. If not, the system should allow an option to create a new account.

Test 9: The system should also not crash if the account is registered and the password is wrong. Those users can have the option to reset password or call FastTrak support staff.

Test 10: The system should check if any detail about the user is edit; the new information is updated in the system.