Test Plan for ATM Software

1. User Registration and Login

Test Design:

Register a new user with valid username, password, and PIN.

Attempt to register a user with an existing username.

Log in with valid username/password combination.

Log in with valid PIN/password combination.

Attempt to log in with invalid credentials.

Execution: Execute each test case and verify the expected outcome.

Test Design:

Deposit money into checking account with valid amount.

Attempt to deposit money into checking account with invalid amount (exceeding daily limit).

Withdraw money from checking account with valid amount.

Attempt to withdraw money from checking account with invalid amount (exceeding daily limit or insufficient funds).

Transfer money from checking account to savings account with valid amount.

Attempt to transfer money from checking account to savings account with invalid amount (exceeding balance).

Deposit money into savings account with valid amount.

Attempt to deposit money into savings account with invalid amount (exceeding daily limit).

Transfer money from savings account to checking account with valid amount.

Attempt to transfer money from savings account to checking account with invalid amount (exceeding balance).

Execution: Execute. Bank Account Operations

each test case and verify the expected outcome.

3. Utility Company Operations

Test Design:

Create a new utility company account with valid username and password.

Log in to utility company account with valid credentials.

Log in to utility company account with invalid credentials.

Check bill payment history with existing bills.

Check bill payment history with no existing bills.

Check next bill payment amount and due date.

Execution: Execute each test case and verify the expected outcome.

4. Data Storage

Test Design:

Test null storage for user accounts.

Test null storage for utility company account.

Test null element with multiple user accounts.

Test null single element for user account.

Test incompatible types in storage (e.g., trying to store non-User objects in user accounts). Test empty elements in user accounts.

Test two normal cases: single and multiple user accounts.

Execution: Execute each test case and verify the expected outcome.