TDD Test Case draft for PayBill functionality

By Raian Rashid

1. Validation of Payment Amount
   - Test that an error is returned if the payment amount is zero or negative.
   - Test that a valid payment amount (greater than zero) passes validation.
   - Test that payment amount of maximum limit passes validation.
   - Test that non-numeric payment amount fails validation.

2. Validation of Payment Method
   - Test that an error is returned if no payment method is selected.
   - Test that a supported payment method (online banking/bkash) passes validation.
   - Test that a non-supported method fails validation

3. Payment Submission Success
   - Test that when the PayBill function is triggered with valid details, it successfully completes the payment and returns a success message.

4. Payment Submission Failure
   - Test that when the PayBill function is triggered with invalid or incomplete details, it returns a failure message
   - Simulate network failure or server error, and test that the appropriate error message is returned

Possible test case scenarios

1. Validation of Payment Amount

   Test Case 1.1: Payment amount is zero
   - Input: paymentAmount = 0
   - Expected Output: Validation error message like *"Payment amount must be greater than zero."*

   Test Case 1.2: Payment amount is negative

   - Input: paymentAmount = -50
   - Expected Output: Validation error message like *"Payment amount must be greater than zero."*

   Test Case 1.3: Payment amount is positive (valid input)

   - Input: paymentAmount = 100
   - Expected Output: Validation passes with no error message.

2. Validation of Payment Method

   Test Case 2.1: No payment method selected
   - Input: paymentMethod = null
   - Expected Output: Validation error message like *"Please select a payment method."*

   Test Case 2.2: Valid payment method selected

   - **Input**: paymentMethod = "Cash on delivery"
   - **Expected Output**: Validation passes with no error message.

3. Payment Submission Success

   Test Case 3.1: Valid payment details provided
   - Input: paymentAmount = 100 , paymentMethod = "Cash on delivery"
   - Expected Output: Payment process completes successfully, and a success message is returned, such as *"Payment completed successfully."*

4. Payment Submission Failure
   - **Input**: Trigger the PayBill function with incomplete or invalid payment details. For instance, an empty payment method or insufficient amount.
   - **Expected Output**: Fail, as the system should return an error message indicating the payment submission failure due to invalid or incomplete details.

5. Payment Amount for Maximum Limit
   - Input: amount = maxPaymentLimit (e.g., 10,000)
   - Expected Output: Pass if the amount matches the exact maximum limit and is valid.

6. Payment Amount with Non-Numeric Input
   - Input: amount = "fifty" (a non-numeric string
   - Expected Output: Fail, as the payment amount must be numeric.

7. Payment Method with Uncommon Options
   - Input: paymentMethod = "Gift Card"
   - Expected Output: Fail, if "Gift Card" is not a supported payment method in your system.