

SPOT: Expt. No. 5 Implementation of Exception Handling

A bank application manages **customer transactions** (withdrawals and deposits).

- Rules:
 1. When a user tries to **withdraw more than balance**, throw **InsufficientFundsException (User-defined)**.
 2. If the **withdraw amount is negative**, throw **IllegalArgumentException (Built-in)**.
 3. Chain exceptions → When a withdrawal fails, wrap it inside a **custom TransactionFailedException**.
 4. Use an **assertion** to ensure balance ≥ 0 after every transaction.
- Do the Following
 1. Create a BankAccount class with methods deposit() and withdraw().
 2. Implement InsufficientFundsException and TransactionFailedException.
 3. Demonstrate exception chaining (cause parameter in constructor).
 4. Use assertions to check that account balance never goes negative.
 5. Write test cases for all conditions (valid transaction, insufficient balance, invalid input).