David Hazall-Farrell

CS-132-Lab 2

1 hour

Really easy, no complaints. My Junit isn’t cooperating though.

//Sets up the bank account class

//keeps track of customer information

//allows for depositing and withdrawing money

//David Hazall-Farrell, 9/15/2024

**public** **class** BankAccount {

//Balance

//the account number

//the name of the customer

**private** **double** balance;

**private** String customerName;

**private** String accountNumber;

**public** BankAccount(String custName, **double** bal, String acctNum) {

**this**.customerName = custName;

**this**.balance = bal;

**this**.accountNumber = acctNum;

}

**public** String toString() {

**return** "Account Num: " + **this**.getAccountID() + ", " + **this**.getCustomerName() + ", " + **this**.getBalance();

}

**public** String getAccountID() {

**return** accountNumber;

}

**public** String getCustomerName() {

**return** customerName;

}

**public** **double** getBalance() {

**return** balance;

}

**public** **void** setBalance(**double** balance) {

**this**.balance = balance;

}

**public** **void** deposit(**double** amountToDeposit) {

**this**.balance = **this**.balance + amountToDeposit;

}

**public** **void** withdraw(**double** amountToWithdraw) {

**if**(**this**.balance - amountToWithdraw < 0) {

**throw** **new** IllegalArgumentException();

}

**this**.balance = **this**.balance - amountToWithdraw;

}

}

import static org.junit.Assert.\*;

import org.junit.Test;

public class TestBankAccount {

@Test

public void testCreation() {

BankAccount ba = new BankAccount("John Smith", 100.0, "123a");

assertEquals("John Smith", ba.getCustomerName() );

assertEquals("123a", ba.getAccountID() );

assertEquals(100, ba.getBalance(), 0.001);

BankAccount ba2 = new BankAccount("John Parker", 300.0, "134a");

assertEquals("John Parker", ba2.getCustomerName() );

assertEquals("134a", ba2.getAccountID() );

assertEquals(300, ba2.getBalance(), 0.001);

}

@Test

public void testDeposit() {

BankAccount ba = new BankAccount("Mary Jones", 49.23, "329438");

assertEquals(49.23, ba.getBalance(), 0.001);

ba.deposit(17.89);

assertEquals(67.12, ba.getBalance(), 0.001);

BankAccount ba2 = new BankAccount("Peter Francis", 38.87, "359413");

assertEquals(38.87, ba2.getBalance(), 0.001);

ba.deposit(10.01);

assertEquals(48.88, ba2.getBalance(), 0.001);

}

public void testWithdraw() {

BankAccount ba = new BankAccount("Marcus Davidson", 80, "329438");

assertEquals(80, ba.getBalance(), 0.001);

ba.deposit(360.80);

assertEquals(280.80, ba.getBalance(), 0.001);

BankAccount ba2 = new BankAccount("Peter Francis", 55.55, "359413");

assertEquals(55.55, ba2.getBalance(), 0.001);

ba.deposit(155.55);

assertEquals(100, ba2.getBalance(), 0.001);

}

}