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Assgnment2

Class Diagram

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Assignment2.java

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package com.mycompany.assignment2;

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\* @author krish

\*/

public class Assignment2 {

public static void main(String[] args) {

BankAcc account1 = new BankAcc(100000, "David Smith");

account1.deposit(3000.50);

account1.displayBalance();

// Creating account2

BankAcc account2 = new BankAcc(100001, "Emily Lee");

account2.deposit(850);

account2.withdraw(400.85);

account2.displayBalance();

// Displaying number of accounts

System.out.println("Total Number of Accounts: " + BankAcc.getNumberOfAccounts());

}

}

BankAcc.java

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package com.mycompany.assignment2;

/\*\*

\*

\* @author krish

\*/

public class BankAcc {

private int accountNumber;

private String accountHolder;

private double balance;

private static final double INTEREST\_RATE = 0.05; // Example interest rate

private static int numberOfAccounts = 0;

// Constructor

public BankAcc(int accountNumber, String accountHolder) {

this.accountNumber = accountNumber;

this.accountHolder = accountHolder;

this.balance = 0.0;

numberOfAccounts++;

}

// Method to get the number of accounts

public static int getNumberOfAccounts() {

return numberOfAccounts;

}

// Method to display the account balance

public void displayBalance() {

System.out.println("Account Number: " + accountNumber);

System.out.println("Account Holder: " + accountHolder);

System.out.println("Current Balance: $" + balance);

}

// Method to deposit an amount

public void deposit(double amount) {

if (amount > 0) {

balance += amount;

} else {

System.out.println("Deposit amount must be positive.");

}

}

// Method to withdraw an amount

public void withdraw(double amount) {

if (amount > 0 && amount <= balance) {

balance -= amount;

} else {

System.out.println("Insufficient funds or invalid amount.");

}

}

}

Output

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