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2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 5_Q2

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

You are working as a developer for CityBank, which wants to build a basic account management system.

Each customer at the bank has:

An Account Number (integer)A Customer Name (string)An Initial Balance (double)

The bank allows two types of transactions:

Deposit – increases the balance.Withdrawal – decreases the balance only if enough funds are available.

If the withdrawal amount is greater than the balance, the withdrawal should not happen, and the balance should remain the same.

You are required to implement this system using:

A class with attributes for account details.A constructor to initialize account details.Setter methods to update details if needed.Getter methods to retrieve details.Objects of the class to represent customers.

Finally, display each customer’s account details after all transactions.

Input Format

The first line of input contains an integer N, representing the number of customers.

For each customer:

- The next line contains the account number (integer).
- The following line contains the customer name (string).
- The next line contains the initial balance (double).
- The next line contains the deposit amount (double).
- The next line contains the withdrawal amount (double).

Output Format

For each customer, print the details in the following format:

1. Account Number: <account_number>
2. Customer Name: <customer_name>
3. Final Balance: <final_balance> (rounded to one decimal place)

Refer to the sample output for formatting specifications.

Sample Test Case

Input: 1
1234
Rahul Sharma
5000
2000
3000

Output: Account Number: 1234
Customer Name: Rahul Sharma

Final Balance: 4000.0

Answer

```
import java.util.*;

class BankAccount{
   private int acc_number;
   private String acc_name;
   private double ini_balance;

   public BankAccount(int acc_number, String acc_name, double ini_balance){
      this.acc_number = acc_number;
      this.acc_name = acc_name;
      this.ini_balance = ini_balance;
   }

   public void Set_acc_number(int acc_number){
      this.acc_number = acc_number;
   }
   public void Set_acc_name(String acc_name){
      this.acc_name = acc_name;
   }
   public void Set_ini_balance(double ini_balance){
      this.ini_balance = ini_balance;
   }

   public int Get_acc_number(){
      return acc_number;
   }
   public String Get_acc_name(){
      return acc_name;
   }
   public double Get_ini_balance(){
      return ini_balance;
   }

   public void Deposit(double amount){
      if(amount > 0){
         ini_balance += amount;
      }
   }
```

```
    public void Withdraw(double amount){
        if(amount > 0 && amount <= ini_balance){
            ini_balance -= amount;
        }
    }


}
class Bank_Management{
    public static void main(String[] args){
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        sc.nextLine();

        for(int i=0; i<n; i++){
            int acc_number = sc.nextInt();
            sc.nextLine();
            String acc_name = sc.nextLine();
            double ini_balance = sc.nextDouble();
            double deposit = sc.nextDouble();
            double withdraw = sc.nextDouble();

            BankAccount customer = new
BankAccount(acc_number,acc_name,ini_balance);

            customer.Deposit(deposit);
            customer.Withdraw(withdraw);

            System.out.printf("Account Number: %d%n",customer.Get_acc_number());
            System.out.printf("Customer Name: %s%n",customer.Get_acc_name());
            System.out.printf("Final Balance: %.1f%n",customer.Get_ini_balance());
        }
        sc.close();
    }
}
```

Status : Correct ***Marks : 10/10***