

Objective: Simulate basic bank operations using Java OOP.

```
import java.util.ArrayList;

import java.util.List;

import java.util.Scanner;

class Account {

    private String accountHolder;

    private double balance;

    private List<String> transactionHistory;

    public Account(String accountHolder) {

        this.accountHolder = accountHolder;

        this.balance = 0.0;

        this.transactionHistory = new ArrayList<>();

    }

    public void deposit(double amount) {

        if (amount > 0) {

            balance += amount;

            transactionHistory.add("Deposited: ₹" + amount);

            System.out.println("₹" + amount + " deposited successfully.");

        } else {

            System.out.println("Invalid deposit amount.");

        }

    }

}
```

```
}
```

```
public void withdraw(double amount) {  
    if (amount > 0 && amount <= balance) {  
        balance -= amount;  
        transactionHistory.add("Withdrew: ₹" + amount);  
        System.out.println("₹" + amount + " withdrawn successfully.");  
    } else {  
        System.out.println("Invalid or insufficient balance for withdrawal.");  
    }  
}
```

```
public double getBalance() {  
    return balance;  
}
```

```
public void printTransactionHistory() {  
    System.out.println("\nTransaction History for " + accountHolder + ":");  
    if (transactionHistory.isEmpty()) {  
        System.out.println("No transactions yet.");  
    } else {  
        for (String record : transactionHistory) {  
            System.out.println(record);  
        }  
    }  
}
```

```
}  
}
```

```
class BankSimulator {  
  
    public static void main(String[] args) {  
  
        Scanner scanner = new Scanner(System.in);  
  
        System.out.print("Enter account holder name: ");  
  
        String name = scanner.nextLine();  
  
  
        Account account = new Account(name);  
  
  
        int choice;  
  
        do {  
  
            System.out.println("\n===== Bank Menu =====");  
  
            System.out.println("1. Deposit");  
  
            System.out.println("2. Withdraw");  
  
            System.out.println("3. Check Balance");  
  
            System.out.println("4. View Transaction History");  
  
            System.out.println("5. Exit");  
  
            System.out.print("Choose option: ");  
  
            choice = scanner.nextInt();  
  
  
            switch (choice) {  
  
                case 1:  
  
                    System.out.print("Enter amount to deposit: ₹");
```

```
        double depositAmount = scanner.nextDouble();

        account.deposit(depositAmount);

        break;

    case 2:

        System.out.print("Enter amount to withdraw: ₹");

        double withdrawAmount = scanner.nextDouble();

        account.withdraw(withdrawAmount);

        break;

    case 3:

        System.out.println("Current Balance: ₹" + account.getBalance());

        break;

    case 4:

        account.printTransactionHistory();

        break;

    case 5:

        System.out.println("Thank you for using the bank simulator!");

        break;

    default:

        System.out.println("Invalid choice.");

    }

} while (choice != 5);

scanner.close();

}

}
```

OUTPUT

BankSimulator

Enter account holder name: KULDEEP CHATURVEDI

===== Bank Menu =====

1. Deposit

2. Withdraw

3. Check Balance

4. View Transaction History

5. Exit

Choose option: 1

Enter amount to deposit: ₹50000

₹50000.0 deposited successfully.

===== Bank Menu =====

1. Deposit

2. Withdraw

3. Check Balance

4. View Transaction History

5. Exit

Choose option: 2

Enter amount to withdraw: ₹30000

₹30000.0 withdrawn successfully.

===== Bank Menu =====

1. Deposit

2. Withdraw

3. Check Balance

4. View Transaction History

5. Exit

Choose option: 3

Current Balance: ₹20000.0

===== Bank Menu =====

1. Deposit

2. Withdraw

3. Check Balance

4. View Transaction History

5. Exit

Choose option: 4

Transaction History for KULDEEP CHATURVEDI:

Deposited: ₹50000.0

Withdrew: ₹30000.0

===== Bank Menu =====

1. Deposit

2. Withdraw

3. Check Balance

4. View Transaction History

5. Exit

Choose option: 5

Thank you for using the bank simulator!