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        System.out.println("₹" + amount + " withdrawn successfully.");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: saurabh sahu

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

1. Deposit

2. Withdraw

3. Check Balance

4. View Transaction History

5. Exit

Choose option: 1

Enter amount to deposit: ₹10000

₹10000.0 deposited successfully.

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

1. Deposit

2. Withdraw

3. Check Balance

4. View Transaction History

5. Exit

Choose option: 2

Enter amount to withdraw: ₹5000

₹5000.0 withdrawn successfully.

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

1. Deposit

2. Withdraw

3. Check Balance

4. View Transaction History

5. Exit

Choose option: 3

Current Balance: ₹5000.0

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

1. Deposit

2. Withdraw

3. Check Balance

4. View Transaction History

5. Exit

Choose option: 4

Transaction History for saurabh sahu:

Deposited: ₹10000.0

Withdrew: ₹5000.0

===== 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!