// Kartika Shah

//banking system

#include <iostream>

#include <string>

using namespace std;

// Transaction class

class Transaction {

public:

string type; // deposit, withdrawal, transfer

float amount;

string note;

void display() {

cout << type << " of ₹" << amount << " | " << note << endl;

}

};

// Account class

class Account {

public:

int accountNumber;

float balance;

Transaction transactions[100];

int transactionCount;

Account() {

accountNumber = 0;

balance = 0;

transactionCount = 0;

}

void deposit(float amount, string note = "Self deposit") {

balance += amount;

transactions[transactionCount++] = {"Deposit", amount, note};

cout << "₹" << amount << " deposited successfully.\n";

}

void withdraw(float amount, string note = "Self withdrawal") {

if (amount > balance) {

cout << "Not enough balance.\n";

return;

}

balance -= amount;

transactions[transactionCount++] = {"Withdrawal", amount, note};

cout << " ₹" << amount << " withdrawn successfully.\n";

}

void transfer(Account &receiver, float amount) {

if (amount > balance) {

cout << "Not enough balance to transfer.\n";

return;

}

balance -= amount;

receiver.balance += amount;

transactions[transactionCount++] = {"Transfer to " + to\_string(receiver.accountNumber),

amount, "Sent"};

receiver.transactions[receiver.transactionCount++] = {"Transfer from " +

to\_string(accountNumber), amount, "Received"};

cout << "₹" << amount << " transferred to Account " << receiver.accountNumber << ".\n";

}

void showBalance() {

cout << "Current balance: ₹" << balance << endl;

}

void showTransactions() {

cout << "\nTransaction History for Account " << accountNumber << ":\n";

if (transactionCount == 0) {

cout << "No transactions yet.\n";

} else {

for (int i = 0; i < transactionCount; i++) {

transactions[i].display();

}

}

}

};

// Customer class

class Customer {

public:

string name;

Account account;

void createCustomer(string customerName, int accNumber) {

name = customerName;

account.accountNumber = accNumber;

cout << "Customer " << name << " created with Account No: " << accNumber << endl;

}

void showInfo() {

cout << "\n Customer: " << name << endl;

cout << "Account No: " << account.accountNumber << endl;

account.showBalance();

}

};

int main() {

Customer customer1, customer2;

customer1.createCustomer("KESHAV", 79845);

customer2.createCustomer("MAYUR", 76000);

customer1.account.deposit(5000);

customer1.account.withdraw(1200);

customer1.account.transfer(customer2.account, 1500);

customer1.showInfo();

customer1.account.showTransactions();

customer2.showInfo();

customer2.account.showTransactions();

return 0;

}