import java.util.Scanner;

*// Account class to store account details and perform operations*

class Account {

    private int accountNumber;

    private String accountHolderName;

    private double balance;

    private String email;

    private String phoneNumber;

*// Constructor to initialize account*

    public Account(int accountNumber, String name, double initialDeposit, String email, String phone) {

*this*.accountNumber = accountNumber;

*this*.accountHolderName = name;

*this*.balance = initialDeposit;

*this*.email = email;

*this*.phoneNumber = phone;

    }

*// Method to deposit money (amount must be positive)*

    public void deposit(double amount) {

        if (amount > 0) {

            balance += amount;

            System.out.println("Deposited: " + amount + " | New Balance: " + balance);

        } else {

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

        }

    }

*// Method to withdraw money (only if sufficient balance available)*

    public void withdraw(double amount) {

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

            balance -= amount;

            System.out.println("Withdrawn: " + amount + " | Remaining Balance: " + balance);

        } else {

            System.out.println("Invalid withdrawal! Check amount or balance.");

        }

    }

*// Method to display all account details*

    public void displayAccountDetails() {

        System.out.println("\n--- Account Details ---");

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

        System.out.println("Holder Name    : " + accountHolderName);

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

        System.out.println("Email          : " + email);

        System.out.println("Phone          : " + phoneNumber);

    }

*// Method to update email and phone number*

    public void updateContactDetails(String email, String phone) {

*this*.email = email;

*this*.phoneNumber = phone;

        System.out.println("Contact details updated successfully!");

    }

*// Getter method to return account number*

    public int getAccountNumber() {

        return accountNumber;

    }

}

*// UserInterface class to handle menu and user interaction*

class UserInterface {

    private Account[] accounts;

    private int accountCount;

    private Scanner sc;

*// Constructor to initialize array and scanner*

    public UserInterface(int size) {

        accounts = new Account[size];

        accountCount = 0;

        sc = new Scanner(System.in);

    }

*// Method to create a new account*

    public void createAccount() {

        System.out.print("Enter Account Holder Name: ");

        String name = sc.nextLine();

        System.out.print("Enter Initial Deposit: ");

        double deposit = sc.nextDouble();

        sc.nextLine(); *// consume newline*

*// Simple validation for email*

        String email;

        while (true) {

            System.out.print("Enter Email: ");

            email = sc.nextLine();

            if (email.contains("@")) break;

            System.out.println("Invalid email! Must contain @");

        }

*// Simple validation for phone*

        String phone;

        while (true) {

            System.out.print("Enter Phone Number (10 digits): ");

            phone = sc.nextLine();

            if (phone.length() == 10) break;

            System.out.println("Invalid phone number!");

        }

*// Auto-generate account number*

        int accNo = 1001 + accountCount;

        accounts[accountCount] = new Account(accNo, name, deposit, email, phone);

        accountCount++;

        System.out.println("Account created successfully! Account Number: " + accNo);

    }

*// Helper method to find account using account number*

    private Account findAccount(int accNo) {

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

            if (accounts[i].getAccountNumber() == accNo) {

                return accounts[i];

            }

        }

        return null;

    }

*// Method to deposit money in a given account*

    public void performDeposit() {

        System.out.print("Enter Account Number: ");

        int accNo = sc.nextInt();

        System.out.print("Enter Amount to Deposit: ");

        double amt = sc.nextDouble();

        sc.nextLine(); *// consume newline*

        Account acc = findAccount(accNo);

        if (acc != null) acc.deposit(amt);

        else System.out.println("Account not found!");

    }

*// Method to withdraw money from a given account*

    public void performWithdrawal() {

        System.out.print("Enter Account Number: ");

        int accNo = sc.nextInt();

        System.out.print("Enter Amount to Withdraw: ");

        double amt = sc.nextDouble();

        sc.nextLine();

        Account acc = findAccount(accNo);

        if (acc != null) acc.withdraw(amt);

        else System.out.println("Account not found!");

    }

*// Method to show details of a given account*

    public void showAccountDetails() {

        System.out.print("Enter Account Number: ");

        int accNo = sc.nextInt();

        sc.nextLine();

        Account acc = findAccount(accNo);

        if (acc != null) acc.displayAccountDetails();

        else System.out.println("Account not found!");

    }

*// Method to update contact details of a given account*

    public void updateContact() {

        System.out.print("Enter Account Number: ");

        int accNo = sc.nextInt();

        sc.nextLine();

        Account acc = findAccount(accNo);

        if (acc != null) {

            System.out.print("Enter New Email: ");

            String email = sc.nextLine();

            System.out.print("Enter New Phone Number: ");

            String phone = sc.nextLine();

            acc.updateContactDetails(email, phone);

        } else {

            System.out.println("Account not found!");

        }

    }

*// Main menu to display options and perform operations*

    public void mainMenu() {

        while (true) {

            System.out.println("\n--- Banking Application ---");

            System.out.println("1. Create a new account");

            System.out.println("2. Deposit money");

            System.out.println("3. Withdraw money");

            System.out.println("4. View account details");

            System.out.println("5. Update contact details");

            System.out.println("6. Exit");

            System.out.print("Enter your choice: ");

            int choice = sc.nextInt();

            sc.nextLine(); *// consume newline*

*// switch-case for user choice*

            switch (choice) {

                case 1: createAccount(); break;

                case 2: performDeposit(); break;

                case 3: performWithdrawal(); break;

                case 4: showAccountDetails(); break;

                case 5: updateContact(); break;

                case 6:

                    System.out.println("Thank you for using Banking Application!");

                    return;

                default: System.out.println("Invalid choice! Try again.");

            }

        }

    }

}

*// Main class with main() method*

public class BankingApp {

    public static void main(String[] args) {

        UserInterface ui = new UserInterface(50); *// up to 50 accounts*

        ui.mainMenu();

    }

}