import java.util.ArrayList;

import java.util.Scanner;

class Contact {

String name;

String phoneNumber;

public Contact(String name, String phoneNumber) {

this.name = name;

this.phoneNumber = phoneNumber;

}

@Override

public String toString() {

return "Name: " + name + ", Phone Number: " + phoneNumber;

}

}

public class Main {

public static void main(String[] args) {

ArrayList<Contact> contacts = new ArrayList<>();

Scanner scanner = new Scanner(System.in);

while (true) {

System.out.println("\nContact Management System");

System.out.println("1. Add Contact");

System.out.println("2. Retrieve Contacts");

System.out.println("3. Update Contact");

System.out.println("4. Delete Contact");

System.out.println("5. Exit");

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

int choice = scanner.nextInt();

scanner.nextLine(); // Consume newline left-over

switch (choice) {

case 1:

System.out.print("Enter contact name: ");

String name = scanner.nextLine();

System.out.print("Enter contact phone number: ");

String phoneNumber = scanner.nextLine();

contacts.add(new Contact(name, phoneNumber));

System.out.println("Contact added successfully!");

break;

case 2:

if (contacts.isEmpty()) {

System.out.println("No contacts available!");

} else {

System.out.println("Available contacts:");

for (int i = 0; i < contacts.size(); i++) {

System.out.println((i + 1) + ". " + contacts.get(i));

}

}

break;

case 3:

if (contacts.isEmpty()) {

System.out.println("No contacts available!");

} else {

System.out.println("Available contacts:");

for (int i = 0; i < contacts.size(); i++) {

System.out.println((i + 1) + ". " + contacts.get(i));

}

System.out.print("Enter the contact number to update: ");

int index = scanner.nextInt() - 1;

scanner.nextLine(); // Consume newline left-over

if (index >= 0 && index < contacts.size()) {

System.out.print("Enter new phone number: ");

phoneNumber = scanner.nextLine();

contacts.get(index).phoneNumber = phoneNumber;

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

} else {

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

}

}

break;

case 4:

if (contacts.isEmpty()) {

System.out.println("No contacts available!");

} else {

System.out.println("Available contacts:");

for (int i = 0; i < contacts.size(); i++) {

System.out.println((i + 1) + ". " + contacts.get(i));

}

System.out.print("Enter the contact number to delete: ");

int index = scanner.nextInt() - 1;

scanner.nextLine(); // Consume newline left-over

if (index >= 0 && index < contacts.size()) {

contacts.remove(index);

System.out.println("Contact deleted successfully!");

} else {

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

}

}

break;

case 5:

System.out.println("Exiting...");

return;

default:

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

}

}

}

Output

Contact Management System

1. Add Contact

2. Retrieve Contacts

3. Update Contact

4. Delete Contact

5. Exit

Enter your choice: 1

Enter contact name: ABC

Enter contact phone number: 123456778

Contact added successfully!

Contact Management System

1. Add Contact

2. Retrieve Contacts

3. Update Contact

4. Delete Contact

5. Exit

Enter your choice: 2

Available contacts:

1. Name: ABC, Phone Number: 123456778