

## Korn Rojrattanapanya (64010009)

```
import java.util.Scanner;

public class Lab2_Pro3_64010009 {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        String city_first, city_second, city_third;

        while (true) {

            System.out.print("Enter the first city: ");
            city_first = scanner.nextLine();

            if (!city_first.isBlank() && city_first.charAt(0) ≥ 'A' && city_first.charAt(0) ≤ 'Z')
                break;

            System.out.println("ERROR: invalid city name");
        }
        while (true) {

            System.out.print("Enter the second city: ");
            city_second = scanner.nextLine();

            if (!city_second.isBlank() && city_second.charAt(0) ≥ 'A' && city_second.charAt(0) ≤ 'Z')
                break;

            System.out.println("ERROR: invalid city name");
        }
        while (true) {

            System.out.print("Enter the third city: ");
            city_third = scanner.nextLine();

            if (!city_third.isBlank() && city_third.charAt(0) ≥ 'A' && city_third.charAt(0) ≤ 'Z')
                break;

            System.out.println("ERROR: invalid city name");
        }
        scanner.close();

        String result;

        if (city_first.compareTo(city_second) < 0 && city_first.compareTo(city_third) < 0) {

            if (city_second.compareTo(city_third) < 0) {
                result = city_first + " " + city_second + " " + city_third;
            } else {
                result = city_first + " " + city_third + " " + city_second;
            }
        } else if (city_second.compareTo(city_first) < 0 && city_second.compareTo(city_third) < 0) {

            if (city_first.compareTo(city_third) < 0) {
                result = city_second + " " + city_first + " " + city_third;
            } else {
                result = city_second + " " + city_third + " " + city_first;
            }
        } else {

            if (city_second.compareTo(city_first) < 0) {
                result = city_third + " " + city_second + " " + city_first;
            } else {
                result = city_third + " " + city_first + " " + city_second;
            }
        }

        System.out.println("The three cities in alphabetical order are " + result);
    }
}
```