

**Lab Goal :** This lab was designed to teach you how to use recursion to solve a connection problem.

**Lab Description :** Take a group of provided connections and create a map of all connections. Search this map with two provided values to see if a connection exists.

This map will contain a **String key** and **a Set of Strings as the value**.

**If A is connected to B and B is connected to C, is A connected to C? yes**

**Connections are bi-directional. If A is connected to B, then B is also connected to A.**

### *algorithm help*

Use the same logic that you used for labs 10a and 10b.

### **Sample Data :**

```
5
JON BOB BOB SALLY SALLY SUE
JON SUE
JON BOB JON SUE SALLY BOB
SALLY SUE
JON BOB JON SUE FRED SALLY
SALLY SUE
JON BOB TIM CHUCK JON SUE FRED SALLY
SALLY CHUCK
JON BOB TIM CHUCK JON SUE FRED SALLY TIM FRED
SALLY CHUCK
```

### **Files Needed ::**

```
BiDirectionalGraph.java
BiDirectionalGraphRunner.java
bidgraph.dat
```

### **Sample Output :**

```
JON CONNECTS TO SUE == YAH
SALLY CONNECTS TO SUE == YAH
SALLY CONNECTS TO SUE == NAH
SALLY CONNECTS TO CHUCK == NAH
SALLY CONNECTS TO CHUCK == YAH
```