**Phone Assignment**

In this assignment, we are going to use Abstract classes and Interfaces to create 2 types of phones: iPhone and Galaxy.

Objectives:

* Define classes.
* Define Interfaces.
* Implement classes that use abstract classes and interfaces.

Tasks:

* Create a Phone abstract class.

*Phone.java*

*public abstract class Phone {*

*private String versionNumber;*

*private int batteryPercentage;*

*private String carrier;*

*private String ringTone;*

*public Phone(String versionNumber, int batteryPercentage, String carrier, String ringTone){*

*this.versionNumber = versionNumber;*

*this.batteryPercentage = batteryPercentage;*

*this.carrier = carrier;*

*this.ringTone = ringTone;*

*}*

*// abstract method. This method will be implemented by the subclasses*

*public abstract void displayInfo();*

*// getters and setters removed for brevity. Please implement them yourself*

*}*

* Create a Ringable interface that contains the following methods:

ring(): This method returns a String.

unlock(): This method returns a String.

*Ringable.java*

*public interface Ringable {*

*// your code here*

*}*

* Create an IPhone and Galaxy classes. Both classes should extend from the Phone abstract class and implement the Ringable interface.

IPhone.java

*public class IPhone extends Phone implements Ringable {*

*public IPhone(String versionNumber, int batteryPercentage, String carrier, String ringTone) {*

*super(versionNumber, batteryPercentage, carrier, ringTone);*

*}*

*@Override*

*public String ring() {*

*// your code here*

*}*

*@Override*

*public String unlock() {*

*// your code here*

*}*

*@Override*

*public void displayInfo() {*

*// your code here*

*}*

*}*

Galaxy.java

*public class Galaxy extends Phone implements Ringable {*

*public Galaxy(String versionNumber, int batteryPercentage, String carrier, String ringTone) {*

*super(versionNumber, batteryPercentage, carrier, ringTone);*

*}*

*@Override*

*public String ring() {*

*// your code here*

*}*

*@Override*

*public String unlock() {*

*// your code here*

*}*

*@Override*

*public void displayInfo() {*

*// your code here*

*}*

*}*

* Implement the overriden methods (ring, unlock, displayInfo) from the IPhone and Galaxy classes according to the PhoneTester file below:

