

Write a Java program to create an abstract class [Instrument](#) with abstract methods `play()` and `tune()`. Create subclasses for Glockenspiel and Violin that extend the Instrument class and implement the respective methods to play and tune each [instrument](#).

Sample Solution:

Java Code:

```
//Instrument.java
// Define an abstract class named Instrument
abstract class Instrument {
    // Declare an abstract method play
    public abstract void play();

    // Declare an abstract method tune
    public abstract void tune();
}
```

```
//Glockenspiel.java
// Define a class named Glockenspiel that extends the Instrument class
class Glockenspiel extends Instrument {
    // Override the play method from the Instrument class
    @Override
    public void play() {
        // Print a message about playing the glockenspiel
        System.out.println("Glockenspiel: Playing the notes on the metal bars.")
    }

    // Override the tune method from the Instrument class
    @Override
    public void tune() {
        // Print a message about tuning the glockenspiel
        System.out.println("Glockenspiel: Tuning the metal bars to the correct")
    }
}
```

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```
//Violin.java
// Define a class named Violin that extends the Instrument class
class Violin extends Instrument {
    // Override the play method from the Instrument class
```

```

@Override
public void play() {
    // Print a message about playing the violin
    System.out.println("Violin: Playing the strings with a bow or fingers.")
}

// Override the tune method from the Instrument class
@Override
public void tune() {
    // Print a message about tuning the violin
    System.out.println("Violin: Tuning the strings to the correct pitch.")
}
}

```

```

//Main.java
// Define the Main class
public class Main {
    // The main method, the entry point of the program
    public static void main(String[] args) {
        // Create an instance of Glockenspiel as an Instrument
        Instrument glockenspiel = new Glockenspiel();
        // Create an instance of Violin as an Instrument
        Instrument violin = new Violin();

        // Call the play method on the glockenspiel object
        glockenspiel.play();
        // Call the tune method on the glockenspiel object
        glockenspiel.tune();

        // Call the play method on the violin object
        violin.play();
        // Call the tune method on the violin object
        violin.tune();
    }
}


```

Output:

```

Glockenspiel: Playing the notes on the metal bars.
Glockenspiel: Tuning the metal bars to the correct pitch.

```



Violin: Playing the strings with a bow or fingers.
Violin: Tuning the strings to the correct pitch.

Explanation: