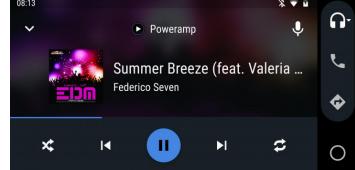# COMMAND, STATE, STRATEGY, ADAPTER
In-Class Activity

Full Names of Team Members: _____

In the space below, draw a first-cut UML class diagram for an audio file player. Here are the design requirements:

1. The design must have a window class named **AudioWindow**.

2. The design must use the **Command** pattern to support undo for the following operations: Play, Pause, Stop, FastForward, Rewind, NextSong, PrevSong.

3. **AudioWindow** must use the **State** pattern to support the following states: Playing, Paused, Stopped.

4. The design must use the **Strategy** pattern to encapsulate different algorithms for playing the following file formats: MP3, WAV, ASF. Each strategy must have a method called **play**().

5. Assume that an open-source class, called **FreeMP3**, exists that has a method called **start**() that can be used to play an MP3 audio file. Use the **Adapter** pattern to adapt the the **FreeMP3** class to work as one of your strategies from requirement 4 above.