```java
package jass;

import jass.engine.SinkIsFullException;
import jass.engine.Source;
import jass.engine.ThreadMixer;
import jass.generators.Delay;
import jass.generators.Mixer;
import jass.generators.OnePoleLowPass;
import jass.generators.Sine;
import jass.render.SourcePlayer;
import main.Template;


public class JassTemplate extends Template<Sine, OnePoleLowPass, Mixer, Delay> {

	private SourcePlayer sourcePlayer;
	private PlayThread playThread;

	private static final int BUFFER_SIZE = 64;
	private static final int SAMPLE_RATE = 44100;

	private class PlayThread extends Thread {

		private boolean started, running;

		public void run() {
			if (!running) {
				running = true;
				started = false;
				while (running) {
					if (!started) {
						sourcePlayer.run();
						started = true;
					}
				}
			}
		}

		public void halt() {
			running = false;
		}
	}

	public JassTemplate() {
		super("JASS");
	}

	@Override
	public void setup(int voices, int voicesToEQAndComp, int effects, int voicesToEffects) {
		initLibrary();
		try {
			int i, j;
			for (i = 0; i < voices; i++) {
				this.voices.add(new Sine(BUFFER_SIZE, SAMPLE_RATE));
			}
			for (i = 0; i < voicesToEQAndComp; i++) {
				this.equalizers.add(new OnePoleLowPass(BUFFER_SIZE));
				this.compressors.add(new Mixer(BUFFER_SIZE, 1));

				this.equalizers.get(i).addSource(this.voices.get(i));
				this.compressors.get(i).addSource(this.equalizers.get(i));

				this.compressors.get(i).setGain(0, 1.0f);
			}
			for (i = 0; i < voicesToEffects; i++) {
				for (j = 0; j < effects; j++) {
					this.effects.add(new Delay(BUFFER_SIZE));
					this.effects.get(i * effects + j).setRawDelay(0.5f);

					if (j == 0) {
						Source previousModule;
						if (this.usesCompressors()) {
							previousModule = this.compressors.get(i);
						} else {
							previousModule = this.voices.get(i);
						}
						this.effects.get(i * effects + j).addSource(previousModule);
					} else {
						this.effects.get(i * effects + j).addSource(this.effects.get(i * effects + j - 1));
					}
				}
				sourcePlayer.addSource(this.effects.get(i * effects + j - 1));
			}
			for (i = i; i < voicesToEQAndComp; i++) {
				sourcePlayer.addSource(this.compressors.get(i));
			}
			for (i = i; i < voices; i++) {
				sourcePlayer.addSource(this.voices.get(i));
			}
		} catch (SinkIsFullException ex) {
			ex.printStackTrace();
```

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                }
        }

        @Override
        public void run() {
                playThread.start();
        }

        @Override
        public void stop() {
                sourcePlayer.stopPlaying();
                playThread.halt();
        }

        @Override
        public void tearDown() {

                reset();

                System.gc();
        }

        @Override
        protected void initLibrary() {
                sourcePlayer = new SourcePlayer(BUFFER_SIZE, BUFFER_SIZE, SAMPLE_RATE, "default [default]");
                sourcePlayer.setOutputChannelNum(2);
                playThread = new PlayThread();
        }
}
```