# Ear Training App Component

**Audio IO**

(Bufers + Single chunk)

- Record
- Playback
- Save

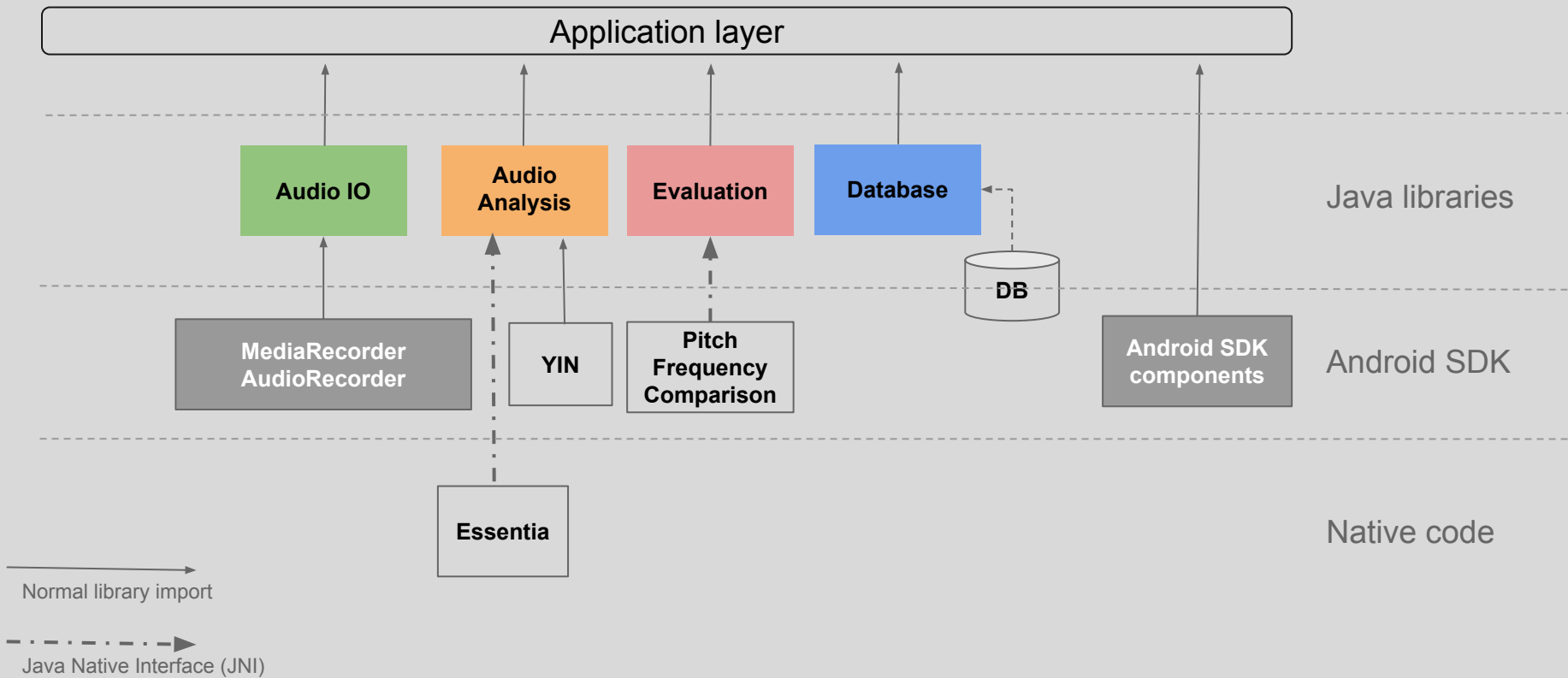**Audio Analysis**

(Offline)

- Pitch

**Evaluation**

(Offline)

(With reference)

- Pitch

**Database**

(Offline)

- Question Datasets
- User data
- Evaluation results

# System Architecture

Application layer

Audio IO

Audio Analysis

Evaluation

Database

Java libraries

MediaRecorder AudioRecorder

YIN

Pitch Frequency Comparison

DB

Android SDK components

Android SDK

Essentia

Native code

Normal library import

Java Native Interface (JNI)

# Flow Chart