Music Maker

## Make your own musical instrument app

Essential Questions

- How can My Piano be improved?
- How can you make a musical app that plays sounds simultaneously?

Objectives

1. Utilize Layout components to organize the user interface of an app.

2. Use events, parallelism, and naming in your app.

3. Reuse and remix code.

4. Be iterative and incremental in developing your app.

5. Test and debug to make a working app.

6. Provide feedback and act on suggestions for improvement.
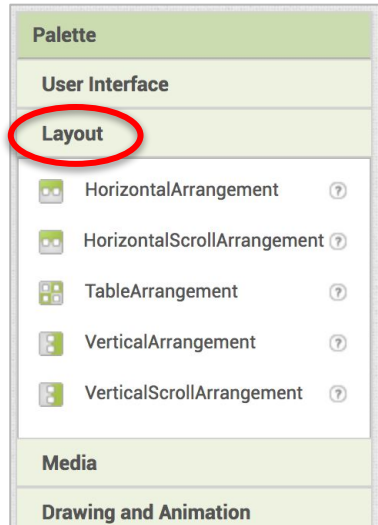
Design Worksheet

- Design the user interface
- Decide vertical or horizontal layout
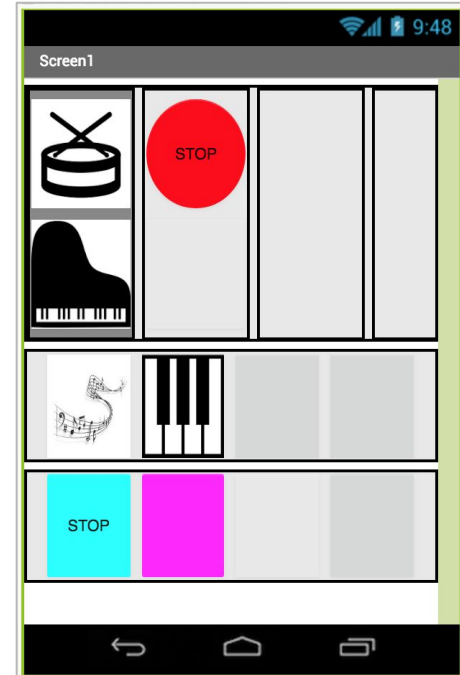- Label which sounds files will be used
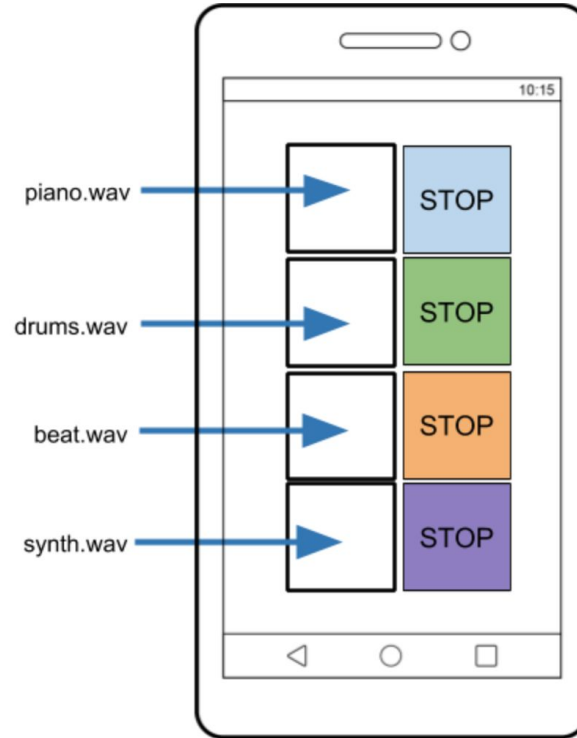
Lesson 1: Layout

Layout components give you more control of how other components appear.

Layout drawer

- Place **Buttons** with **HorizontalArrangements**, **VerticalArrangements**, or **TableArrangements**, depending on your design.
- Set the *Height* and *Width* of your buttons to fit them inside the Arrangements.
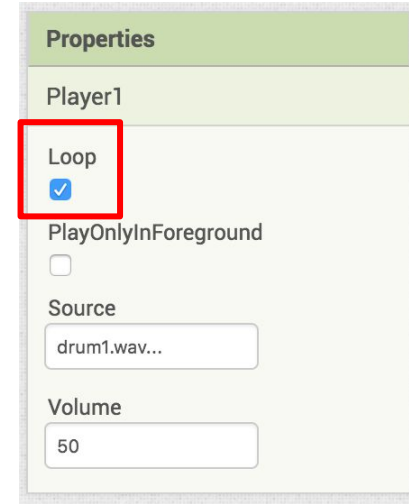
Lesson 1:

Complete Student Guide Part 1:

Lesson 2: Player Component

- Multiple Player components needed
- Each Player has its own sound file so they can play at the same time
- *Loop* property makes the sound play again
- Start, Stop, Pause blocks control Player

Properties

Player1

Loop
☑

PlayOnlyInForeground
☐

Source
drum1.wav...

Volume
50

call Player1 ▾ .Start

call Player1 ▾ .Pause

call Player1 ▾ .Stop

Lesson 2:

Complete Student Guide Part 2:

Lesson 3: Feedback

- Two things you like about the app
- One way to improve the app
- Be constructive, thoughtful

Lesson 3: Challenge

- Add a Record button to record the music made with the app
- Add a Play Recording button to play back the recorded music

Vocabulary Words

Layout

HorizontalArrangement

VerticalArrangement

procedure

call a procedure

abstraction

parameter