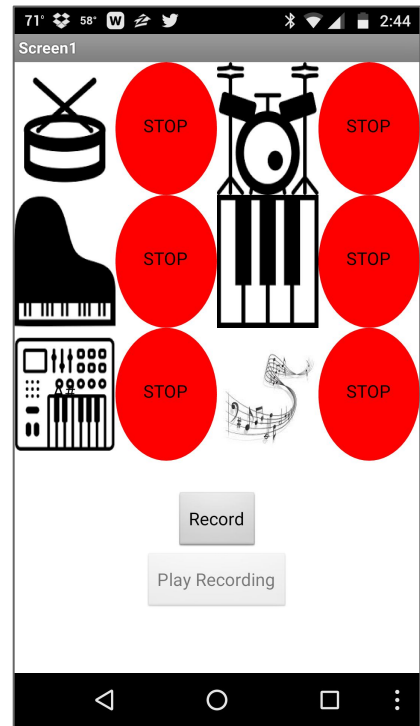


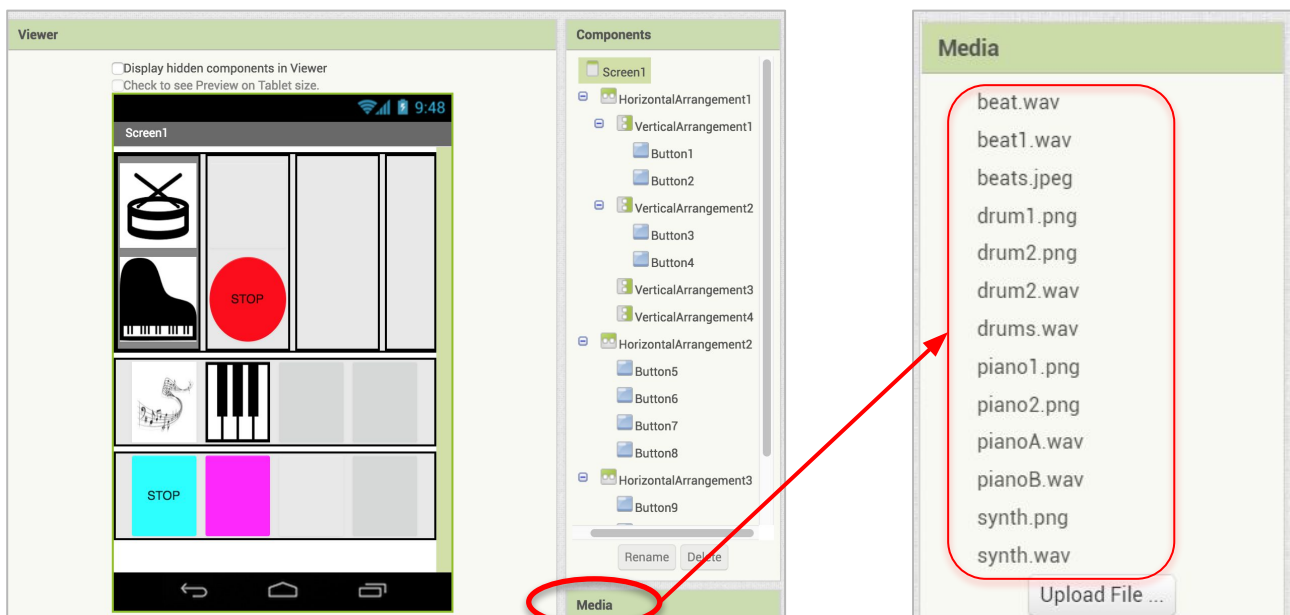
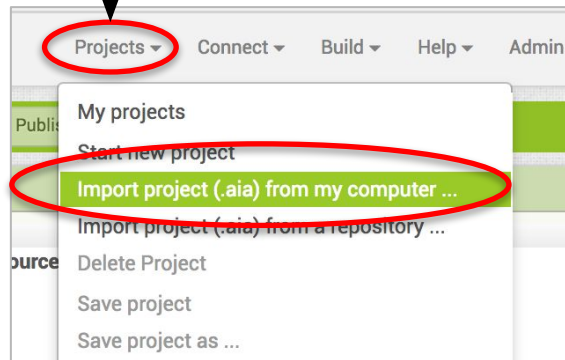
MUSIC MAKER: PART 1

In this unit,
you will create your own
music by composing and
synthesizing musical
sounds generated by
various instruments.



START HERE

- 1 Go to the MIT App Inventor website (<http://ai2.appinventor.mit.edu>).
- 2 Import the “**MusicMaker_template.aia**” project provided by your teacher. -----
- 3 Your Designer will look like this when the template is imported. You have been given some starter layouts to view, modify, or delete. You can see all the image and sound files are under **Media**.



DESIGNING THE APP

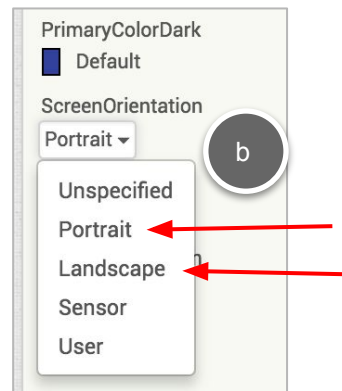
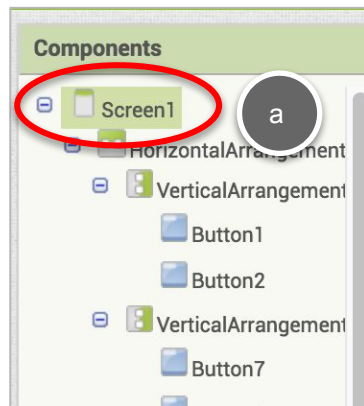
Use your Design Worksheet as a guide to layout your components.



In the template, you have been provided with some options for layouts, using **HorizontalArrangement** and **VerticalArrangement** components. Feel free to use these, or make your own layouts. Delete any **HorizontalArrangements** or **VerticalArrangements** you decide not to use.

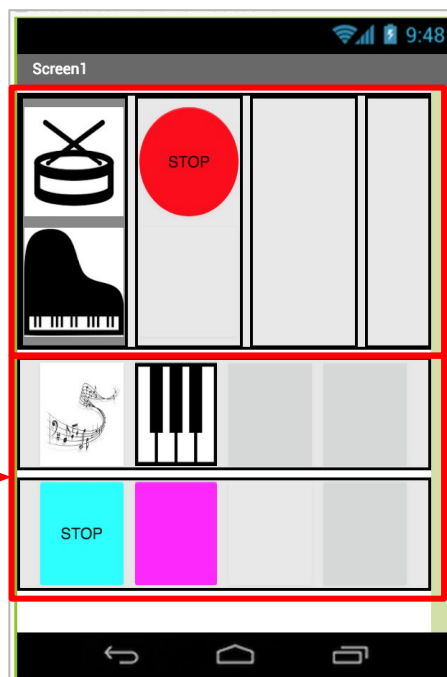
5

The first step is to set your app's orientation. Did you design your app to be used in a vertical position, or sideways? Click on **Screen1** in the Components pane, and then change its **ScreenOrientation** property to either **Portrait** (vertical) or **Landscape** (horizontal).



6

Look at the template layout to see how the **HorizontalArrangement** and **VerticalArrangement** components can change the layout.



1 **HorizontalArrangement**, with 4 **VerticalArrangements** inside. Each **VerticalArrangement** contains 2 Buttons.

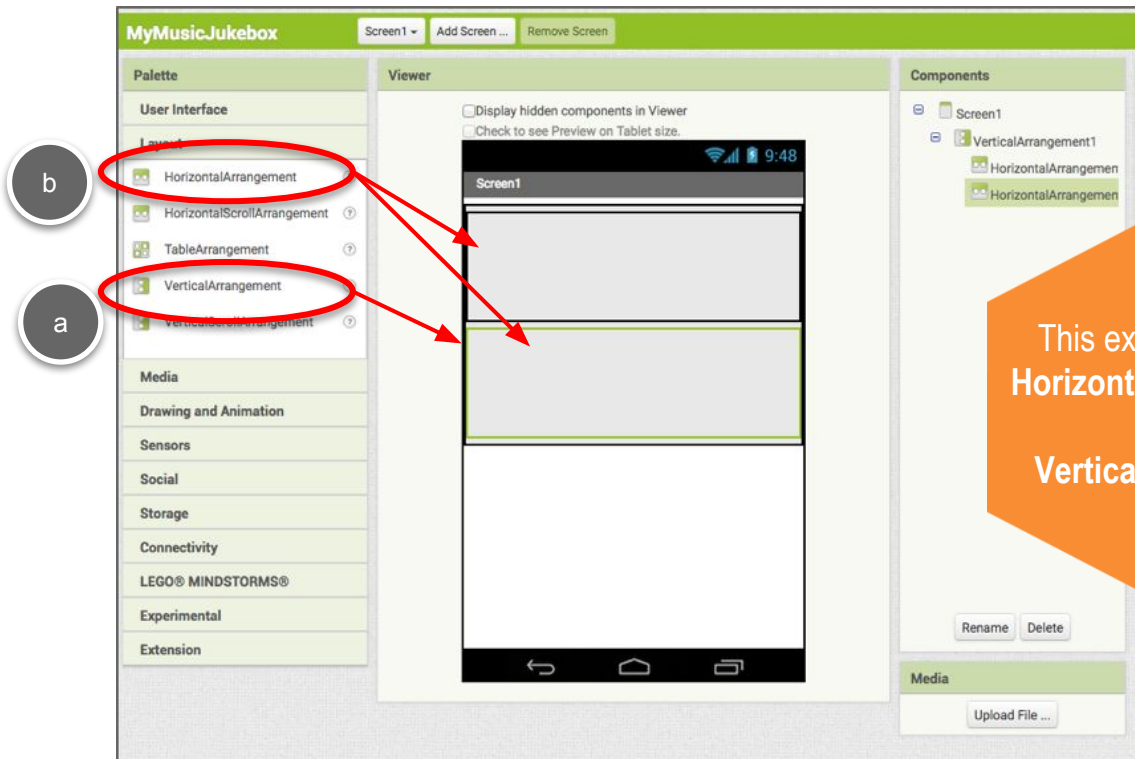
Two **HorizontalArrangements**, with 4 Buttons inside each. →

7

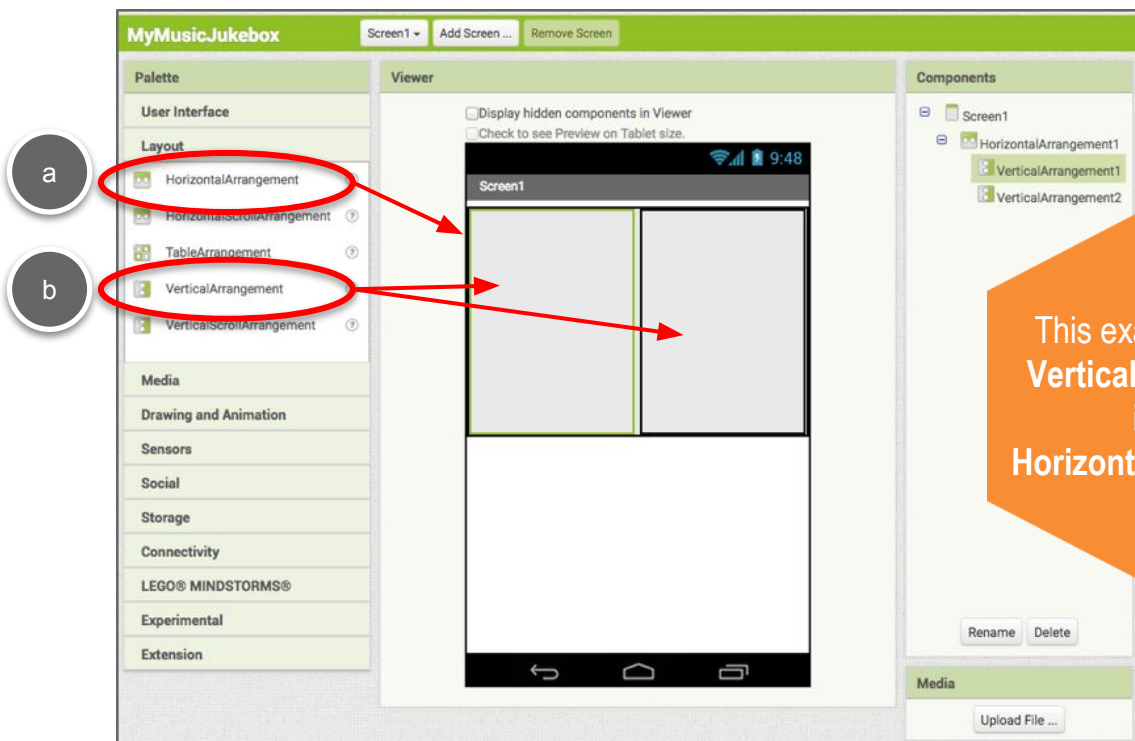
Set your screen layout how you want it to be by using the supplied arrangements, modifying them, or creating your own.

DESIGNING THE APP

If you want to add your own **VerticalArrangements** or **HorizontalArrangements**, you will find them in the Layout drawer. Drag them out, and it is recommended to set either the *Width* and/or *Height* to **Fill Parent** so it fills the screen (either by width or height).



This example shows 2 **HorizontalArrangements** inside a **VerticalArrangement**.

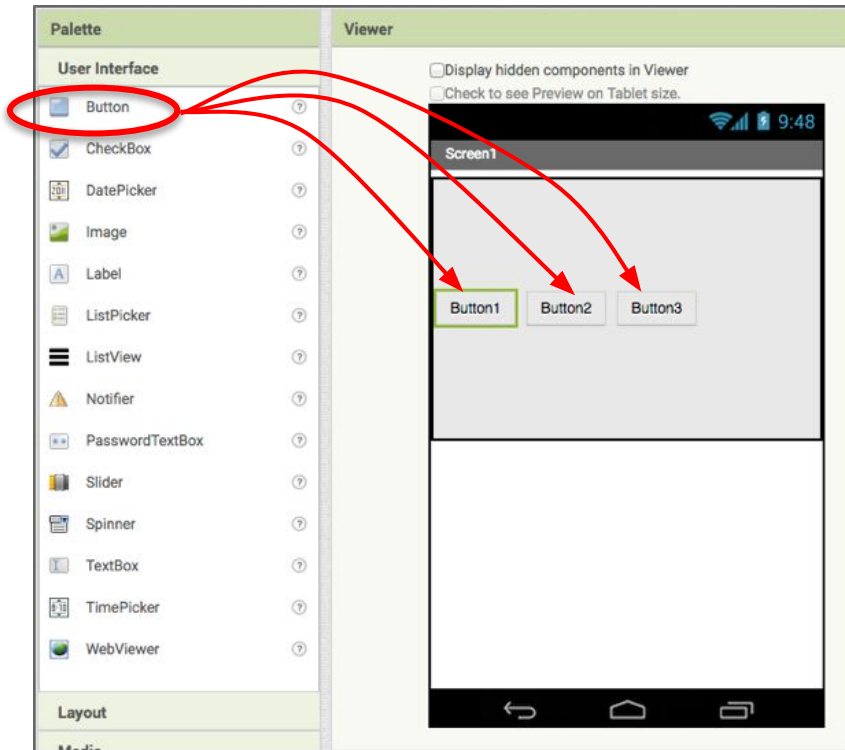


This example shows 2 **VerticalArrangements** inside a **HorizontalArrangement**.

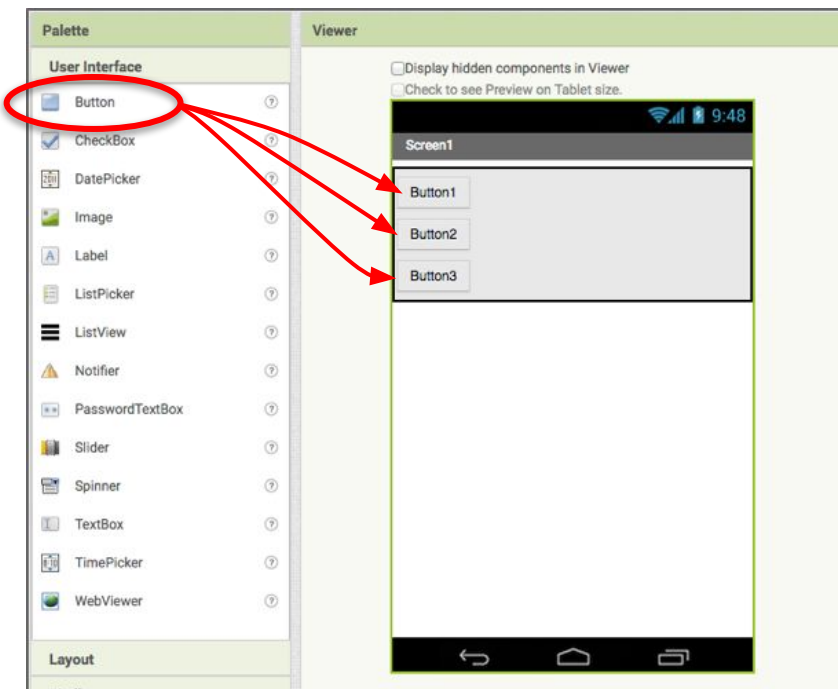


DESIGNING THE APP

Buttons are laid out differently depending on whether you are using a **HorizontalArrangement** or a **VerticalArrangement**.



Buttons added to a **HorizontalArrangement** appear next to each other.



Buttons added to a **VerticalArrangement** appear below each other.



MAKING IT FIT

- 8 Also note the sizing of the Buttons inside the Arrangements. To make sure they fit and are visible. You might have to change their *Width* and *Height* properties.

Button properties
example for those
inside a
VerticalArrangement

Height
20 percent...

Width
Fill parent...

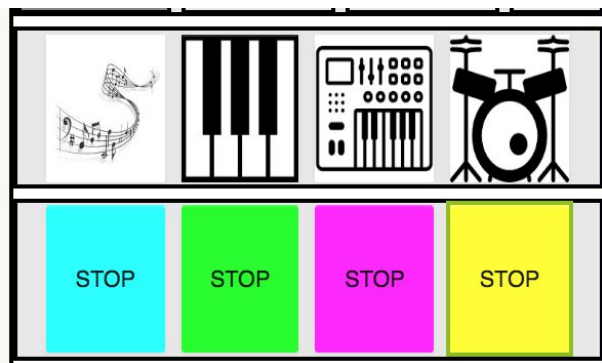
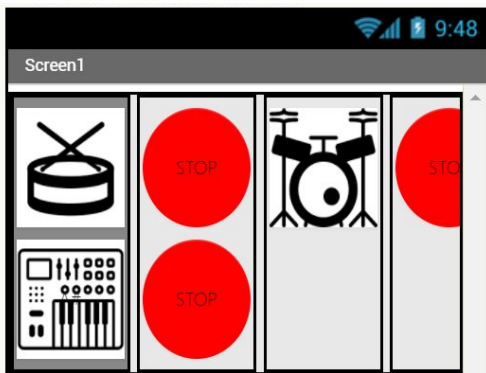
Button properties
example for those
inside a
HorizontalArrangement

Height
Fill parent...

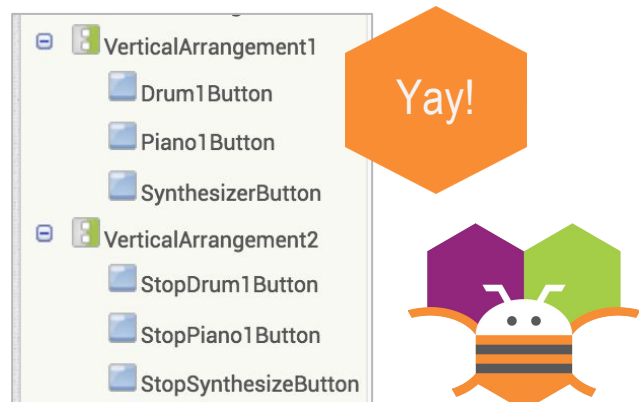
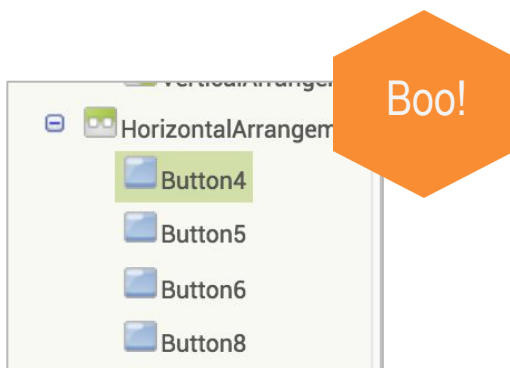
Width
20 percent...

Here 20% means
20% of the “parent”,
the Arrangement in
which it is contained.

- 9 Add more Buttons so you have at least 4 instruments. Below are two examples of possible layouts.



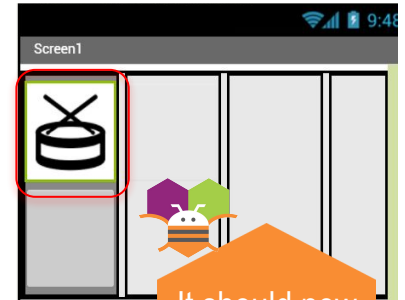
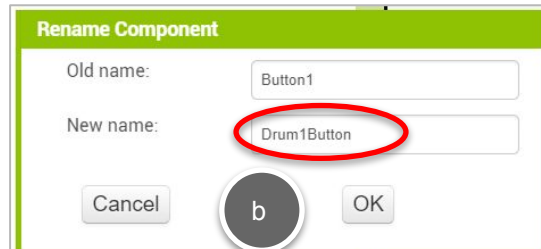
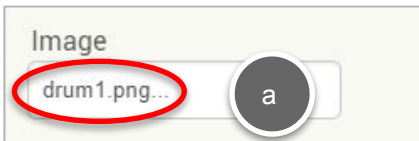
- 10 Make sure to rename your Buttons using descriptive names to make your app more manageable.



CHANGING THE BUTTON PROPERTIES

11

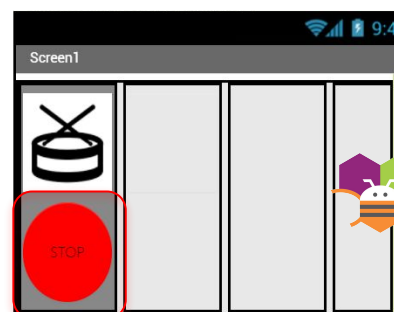
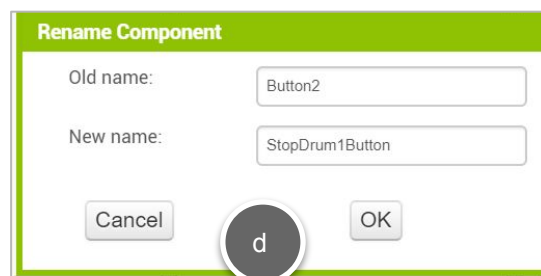
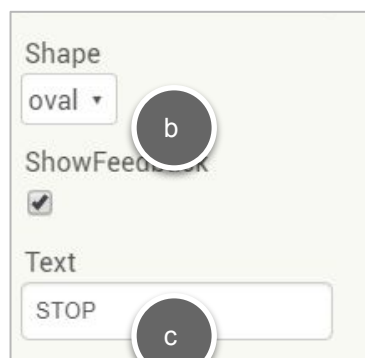
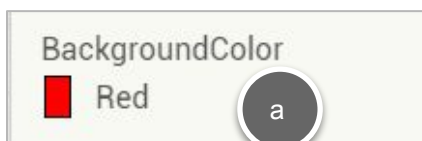
For example, you could start with a drum. Select **Button1** in the template, change its *Image* to “**drum1.png**” and rename it “**Drum1Button**”.



It should now look like this!

12

To make a Stop button for the drum, select **Button2** in the template, change its *BackgroundColor* to “**Red**”, *Text* to “**STOP**”, *Shape* to “**oval**” and rename it to “**StopDrum1Button**”.



It should now look like this!

The following are the Computational Thinking Concepts covered in Part 2.

Music Maker

1. Naming:

