MUSIC MAKER: PART 1

nz

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**.
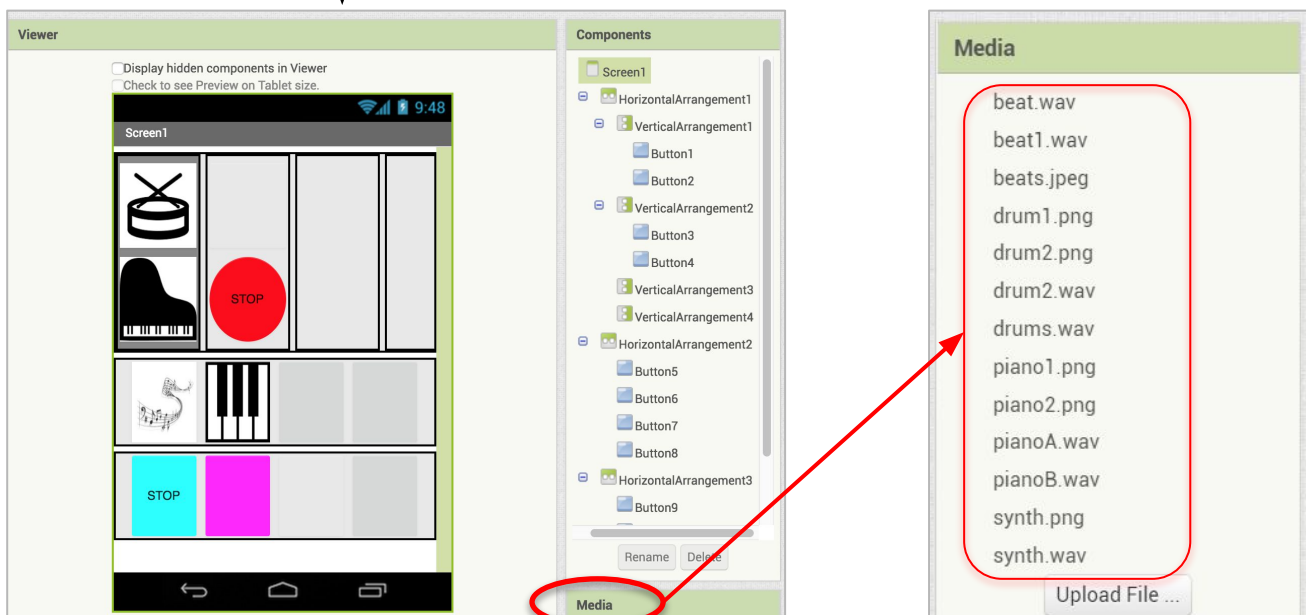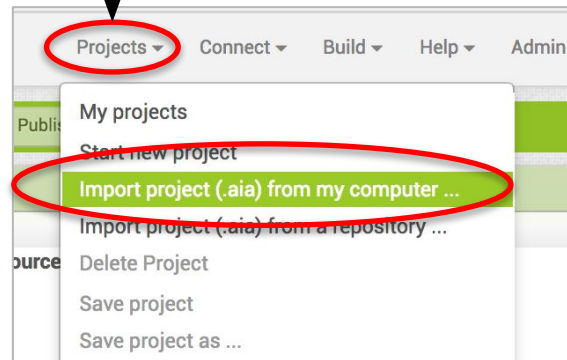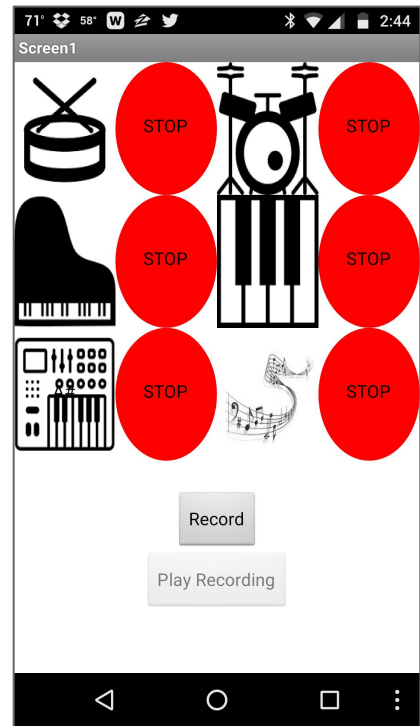
DESIGNING THE APP

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

In the template, you are 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 horizontal? Click on **Screen1** in the Components pane, and then change its **ScreenOrientation** property to either **Portrait** (vertical) or **Landscape** (horizontal).
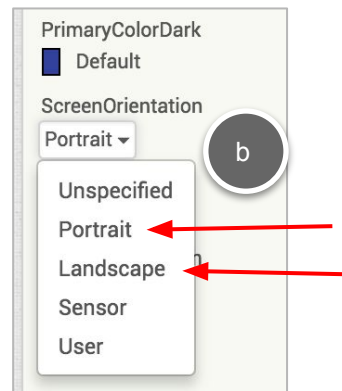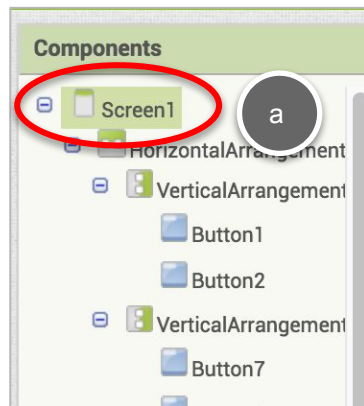
6 Look at the template layout to see how the **HorizontalArrangement** and **VerticalArrangement** components can change the layout.
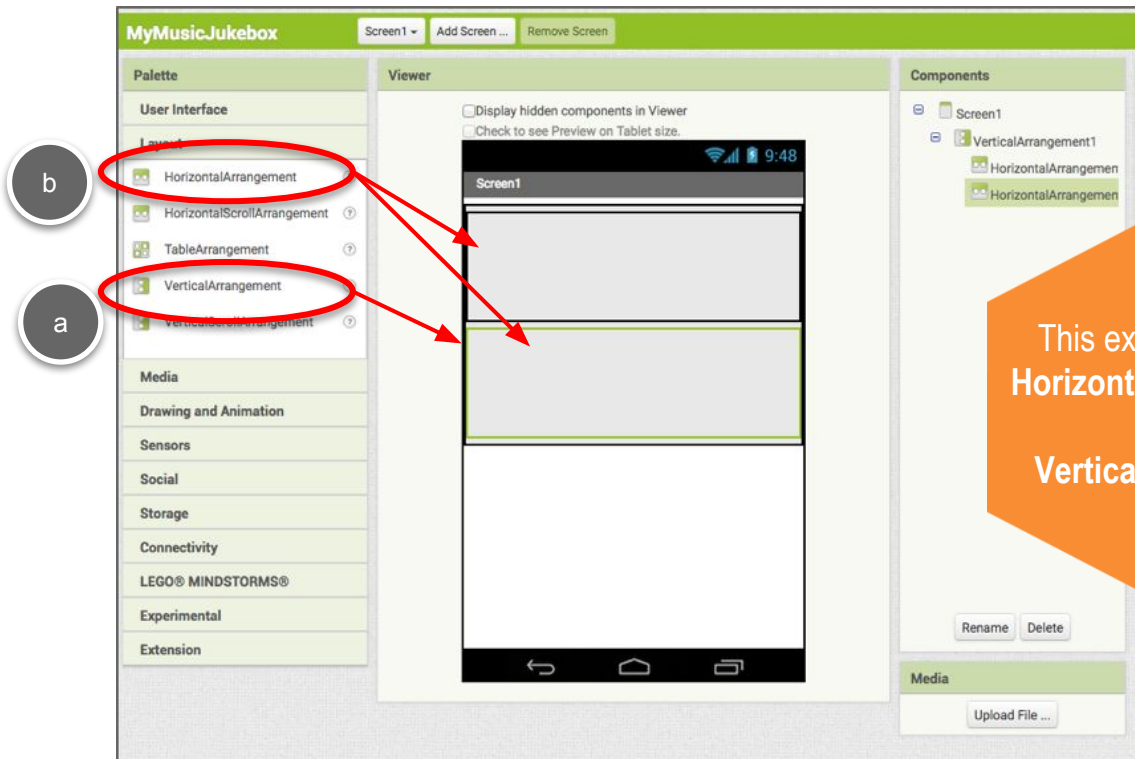

1 **HorizontalArrangement**, with 4 **VerticalArrangements** inside. Each **VerticalArrangement** contains 2 Buttons.
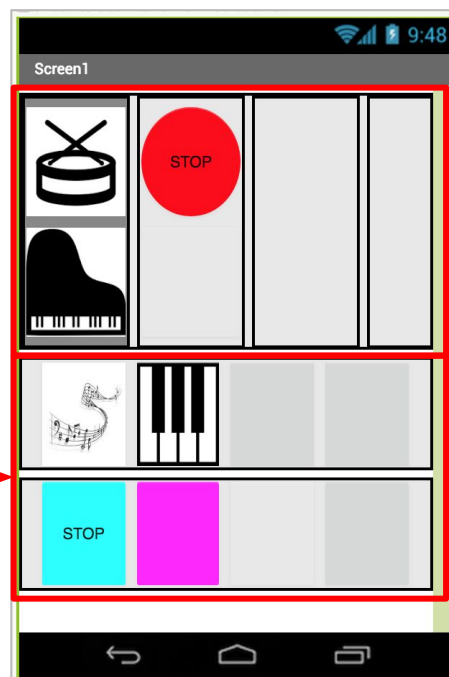
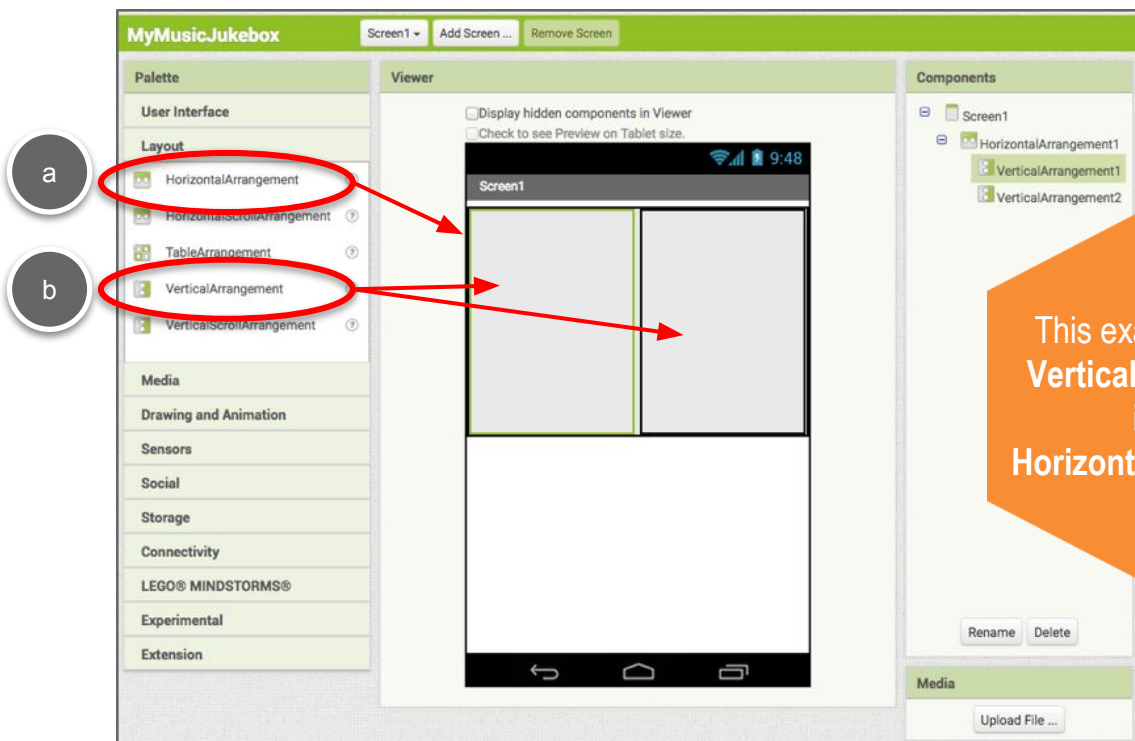Two **HorizontalArrangements**, with 4 Buttons inside each.

7 Set your screen layout the way 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**.
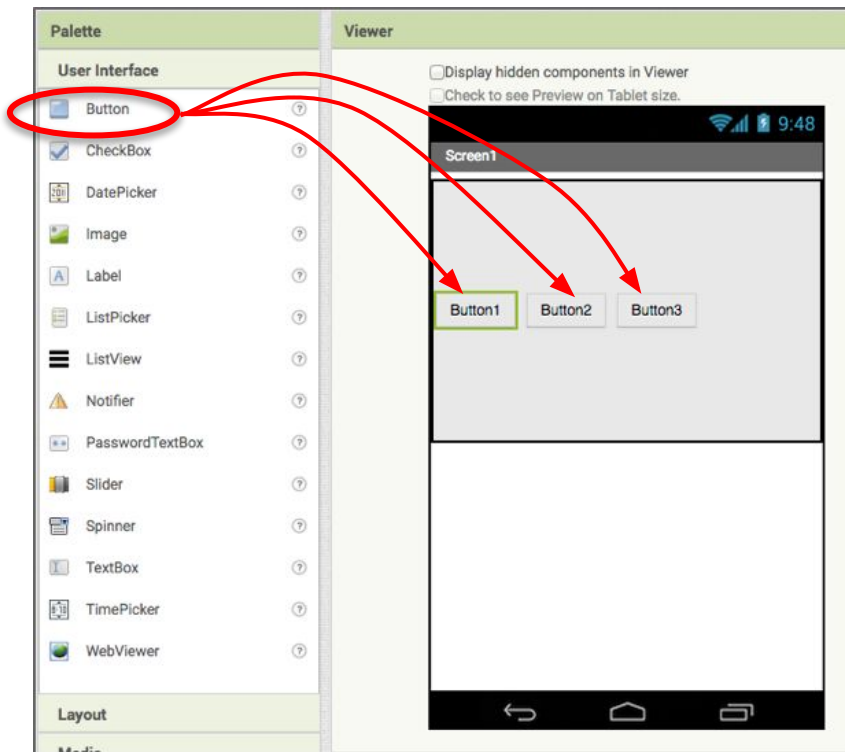

This example shows 2 **VerticalArrangements** inside a **HorizontalArrangement.**
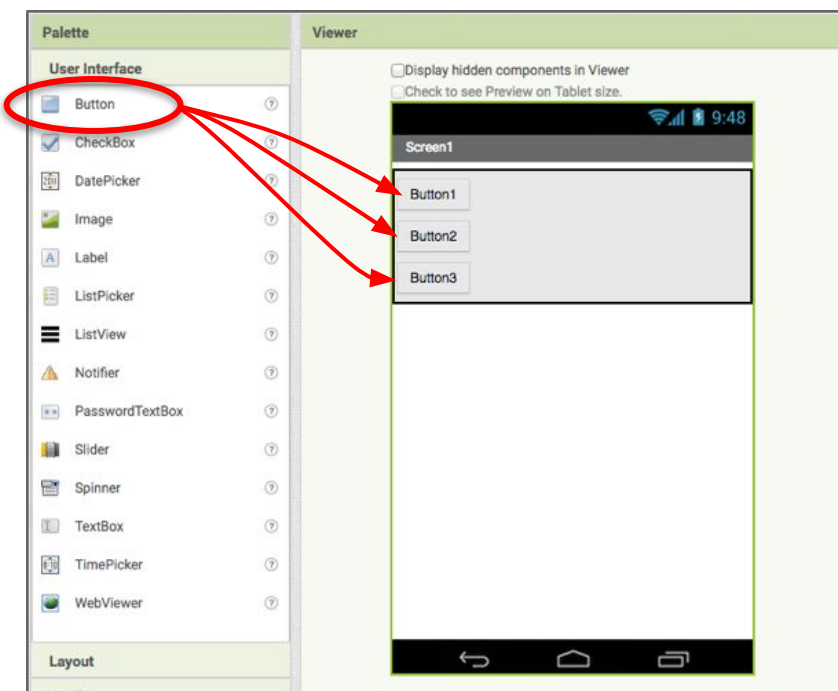
DESIGNING THE APP

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**. You might have to change the *Width* and *Height* properties to make sure they fit and are visible.

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

Sample **Button** properties for a **VerticalArrangement**
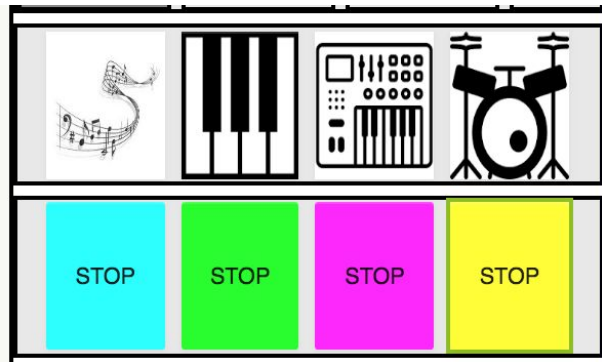
Height
20 percent...

Width
Fill parent...

Sample **Button** properties for a **HorizontalArrangement**
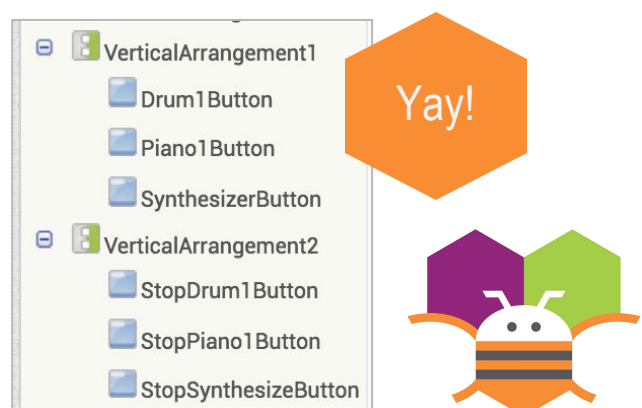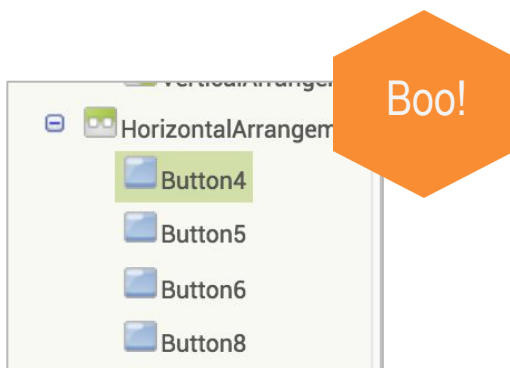
Height
Fill parent...

Width
20 percent...

9 Add more **Buttons** so you have at least 4 instruments.. Below are two examples of possible layouts.
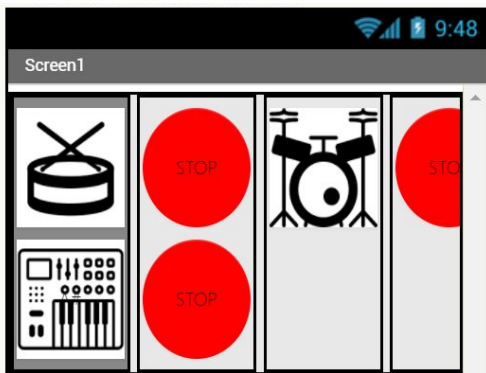
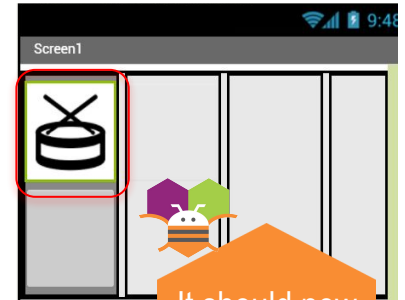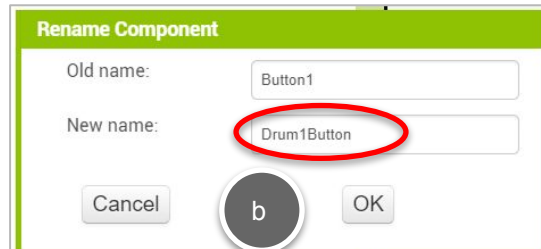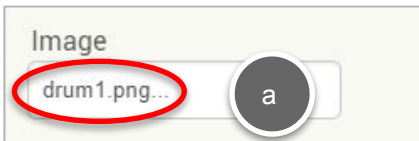**10** Make sure to rename your **Buttons** using descriptive names to make the coding of your app more manageable.

Boo!

HorizontalArrangem
Button4
Button5
Button6
Button8

Yay!

VerticalArrangement1
Drum1Button
Piano1Button
SynthesizerButton
VerticalArrangement2
StopDrum1Button
StopPiano1Button
StopSynthesizeButton

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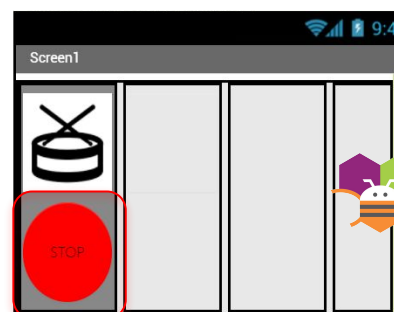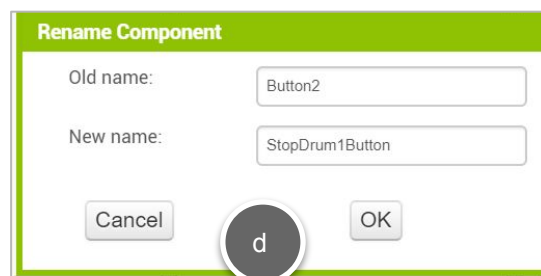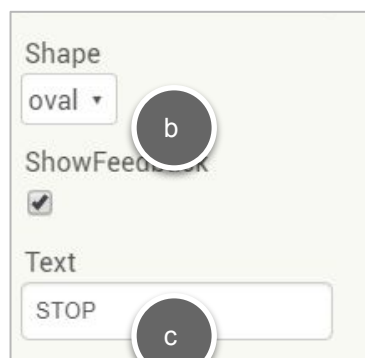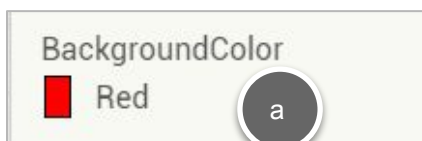APP INVENTOR

CHANGING THE BUTTON PROPERTIES

11 For example, perhaps start with a drum. Select **Button1** in the template, change its *Image* to "**drum1.png**" and rename it to "**Drum1Button**".

Image
drum1.png...   (a)

Rename Component
Old name: Button1
New name: Drum1Button   (b)
Cancel   OK

Screen1

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 "**StopDrum1Button**".

BackgroundColor
Red   (a)

Shape
oval ▼   (b)
ShowFeedback
☑
Text
STOP   (c)

Rename Component
Old name: Button2
New name: StopDrum1Button
Cancel   (d)   OK

Screen1

STOP

It should now look like this!

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COMPUTATIONAL THINKING CONCEPTS

The following are the Computational Thinking Concepts covered in Part 1.

Music Maker
1. Naming: