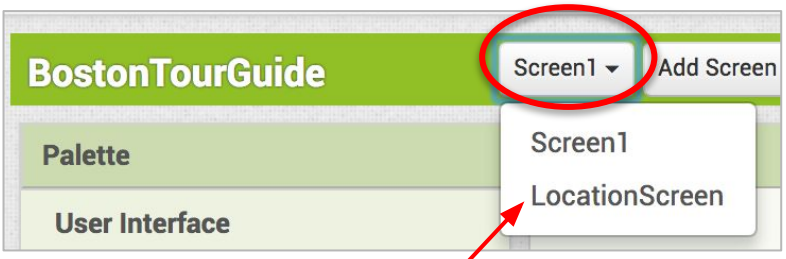
TOUR GUIDE: LOCATION SCREEN

In this lesson, you will code a second screen in your app to display and speak information about your landmarks.

CODING THE LOCATION SCREEN

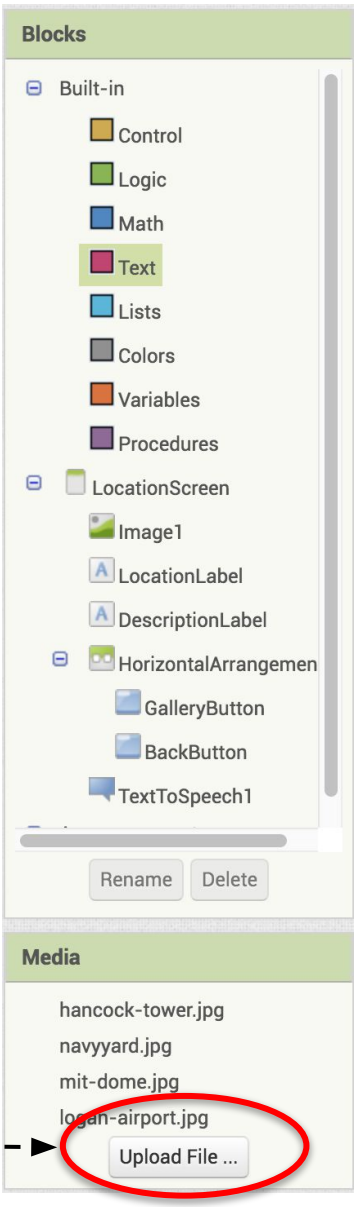
1 Switch to the **LocationScreen**.



Start by uploading the images you've selected for your four landmarks.

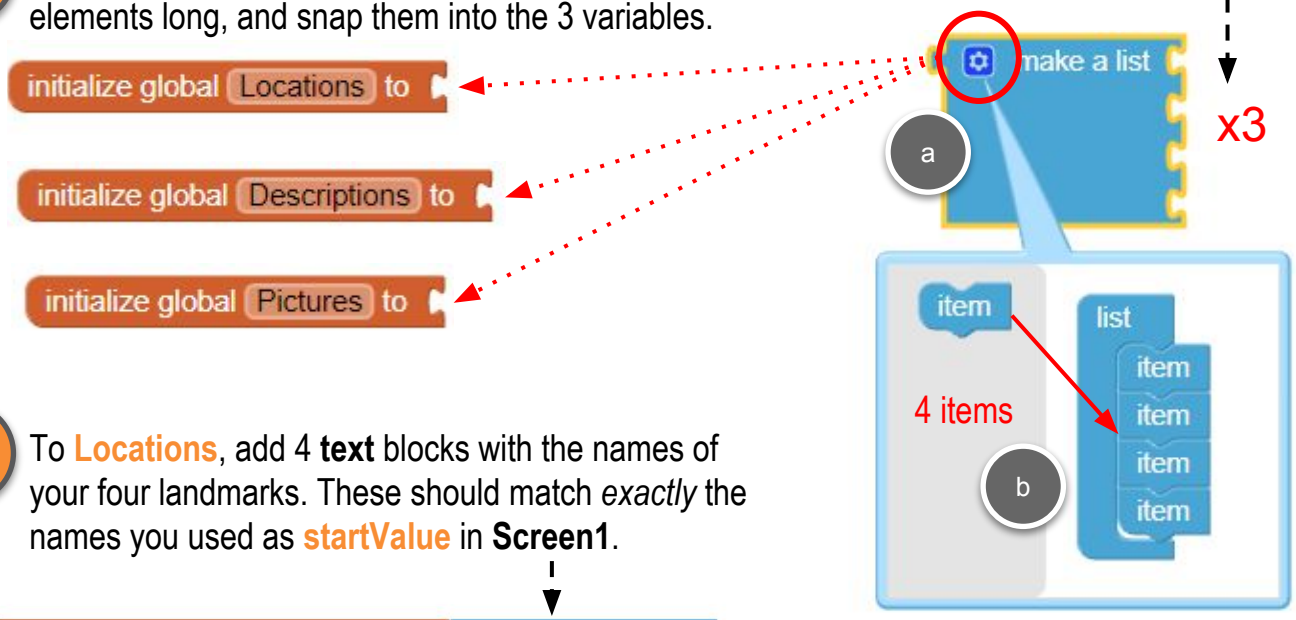
2 Click on "**Upload File**" under Media, and upload your four image files.

3 Next step is to make three variables, and name them **Locations**, **Descriptions**, and **Pictures**.

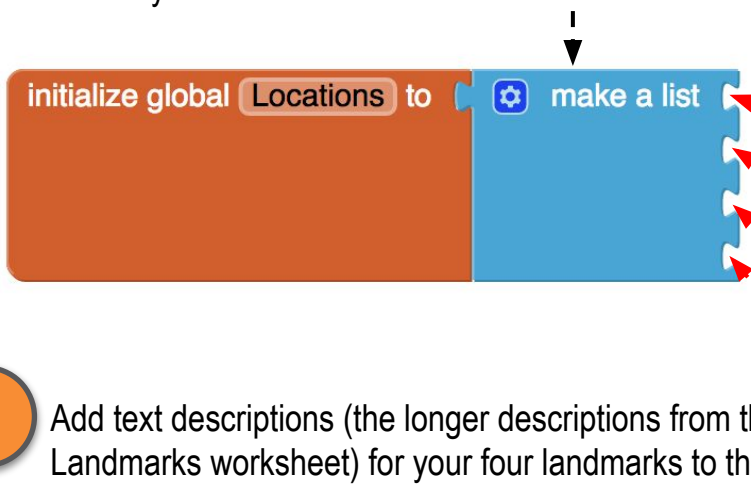


INITIALIZING LISTS

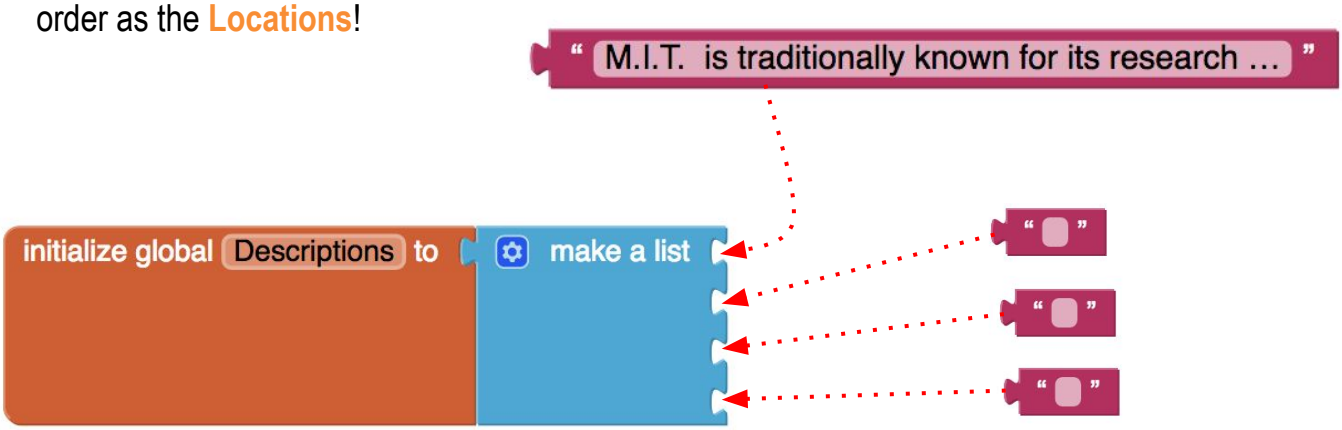
4 Drag out 3 **make a list** blocks, add items so they are each 4 elements long, and snap them into the 3 variables.



5 To **Locations**, add 4 **text** blocks with the names of your four landmarks. These should match *exactly* the names you used as **startValue** in **Screen1**.

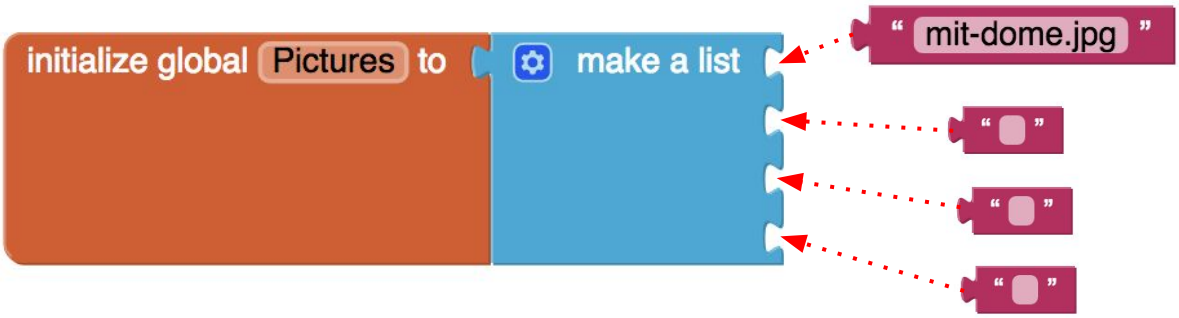


6 Add text descriptions (the longer descriptions from the Landmarks worksheet) for your four landmarks to the **Descriptions** list, making sure they are in the same order as the **Locations**!



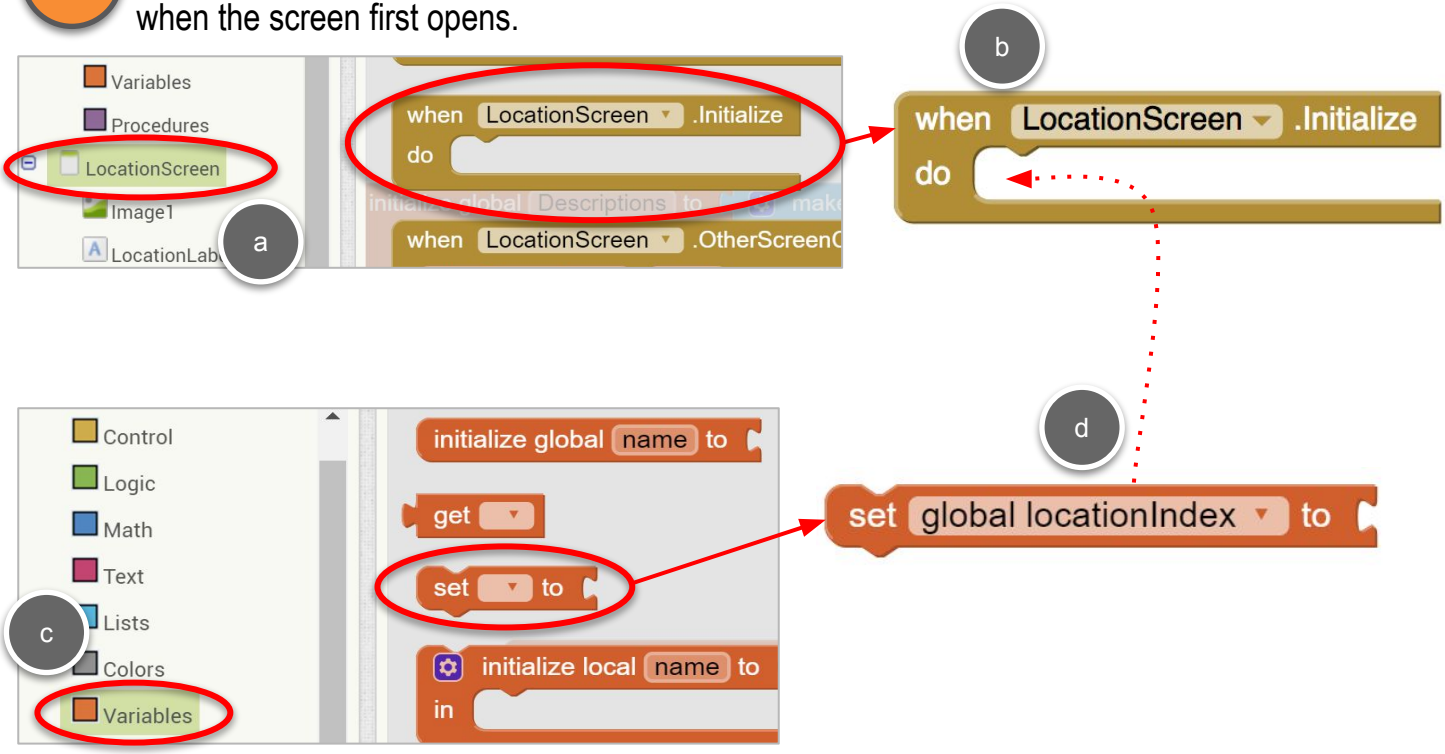
INITIALIZING LISTS (continued)

7 And to **Pictures**, add **text** blocks that contain the exact filenames for the uploaded pictures.



8 Now make a new variable, **locationIndex**, to keep track of which Location to display.
Initialize it to 0.

9 Set the value of **locationIndex** in **LocationScreen.Initialize** event. The event is triggered when the screen first opens.



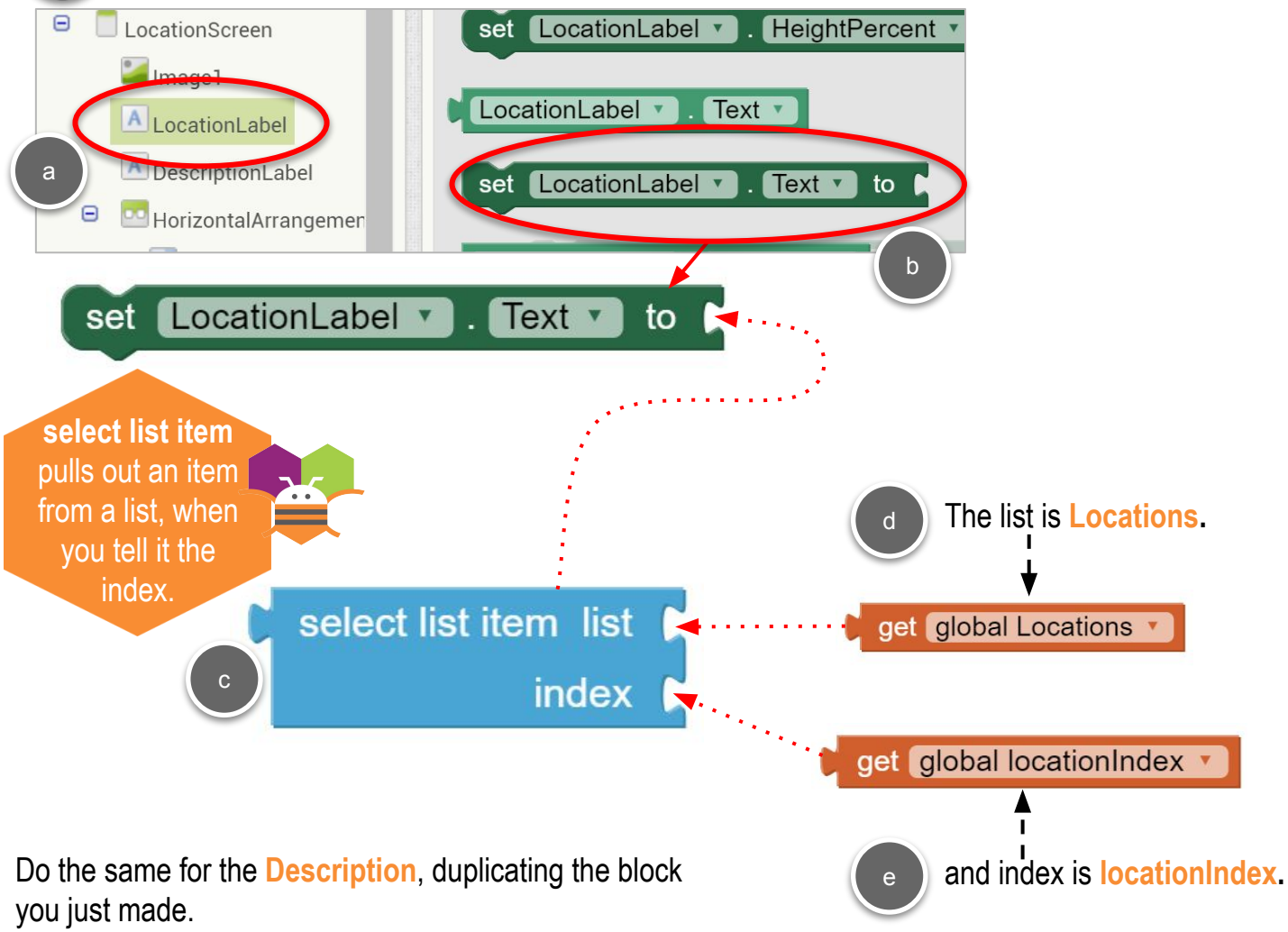
SETTING LOCATIONINDEX

10 Set the value of **locationIndex** based on the **start value** passed from **Screen1**. Look for the location passed in start value in the **Locations** list, and set **locationIndex** to whatever that index is.

SETTING LOCATIONLABEL

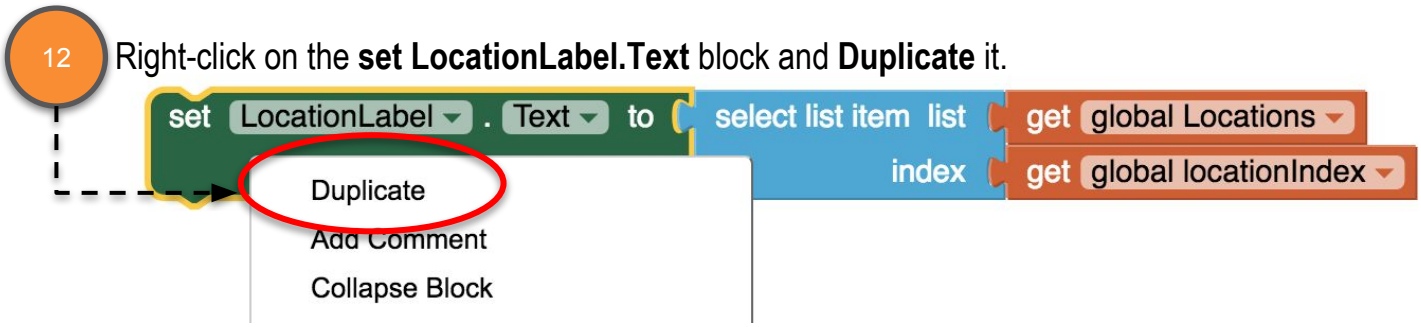
You will use **locationIndex** to point to the correct Location, Description, and Picture items in your three lists! Since the lists all contain information in the same order, they are called ***parallel lists***.

11 Start with the **set LocationLabel.Text** block, snapping it in below **set global locationIndex**.



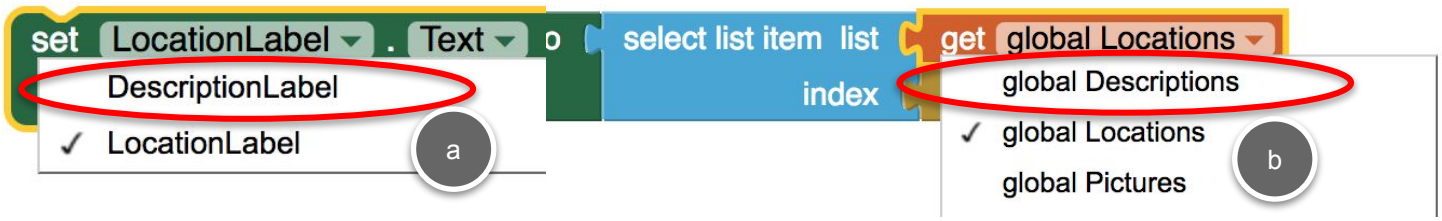
Do the same for the **Description**, duplicating the block you just made.

12 Right-click on the **set LocationLabel.Text** block and **Duplicate** it.



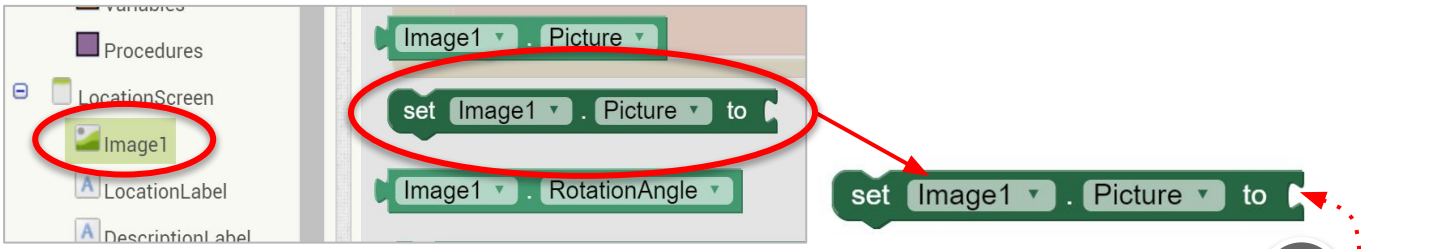
SETTING DESCRIPTION AND PICTURE

13 Change **LocationLabel** to **DescriptionLabel,** and Locations to Descriptions.

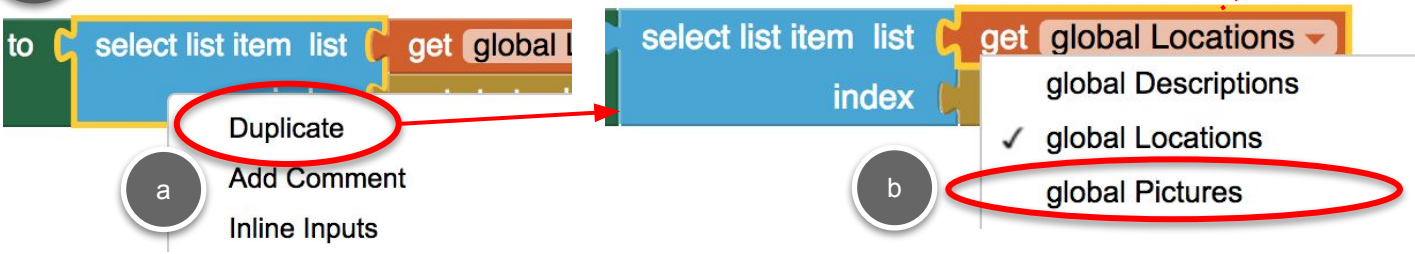


14 And snap it into **LocationScreen.Initialize** event, below **set LocationLabel.Text**.

15 Also set the **Image.Picture** to the correct PIcture.
You can't Duplicate the entire block so drag out **set Image1.Picture.**



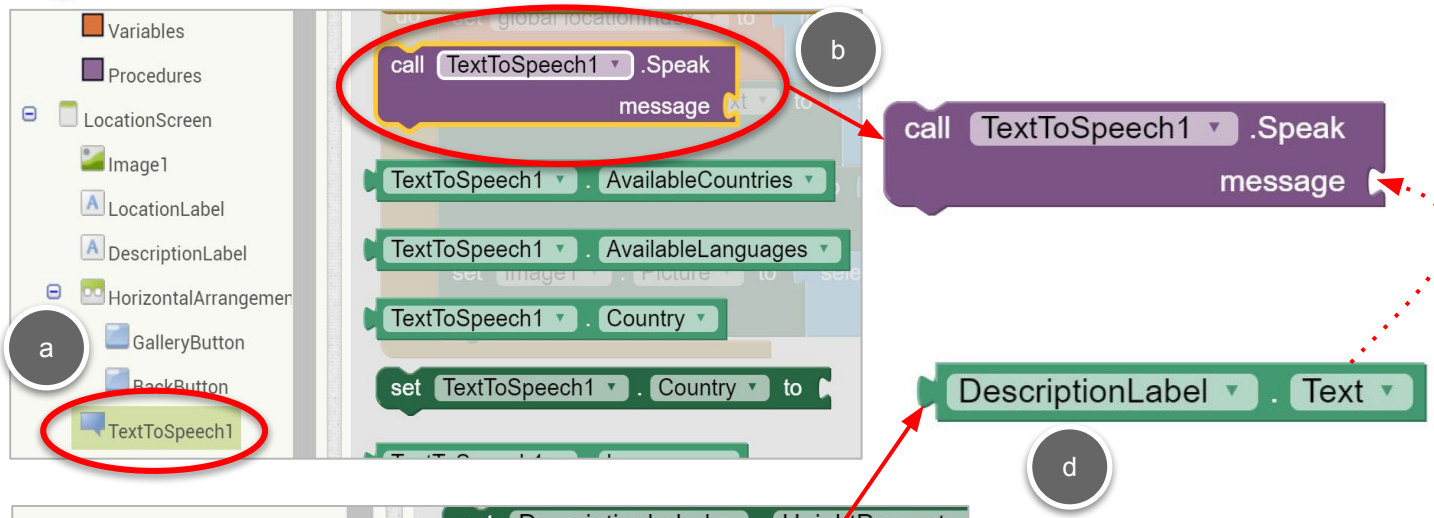
16 Duplicate *just* **select list item** this time, and change Locations and to Pictures.



17 And snap the block into **LocationScreen.Initialize** event, below **set DescriptionLabel.Text**.

SPEAK THE DESCRIPTION

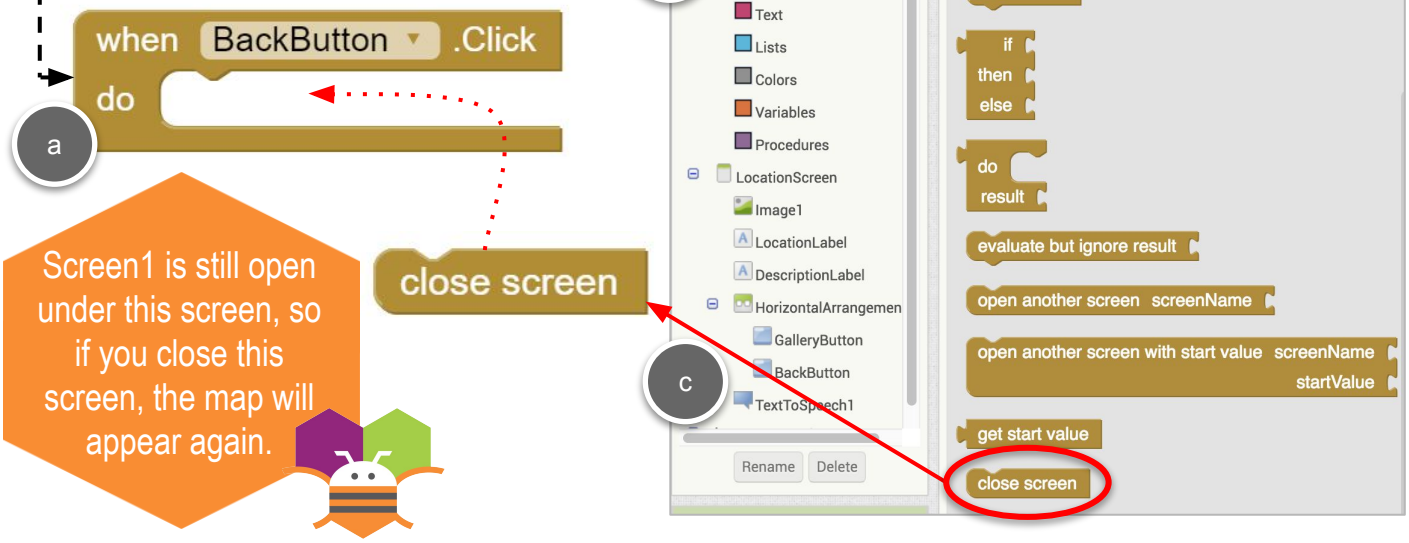
18 Use the **TextToSpeech** component to have the app "speak" the description.



e And snap it in to **LocationScreen.Initialize**, below **set Image1.Picture.**

One more button and you're finished with this screen!

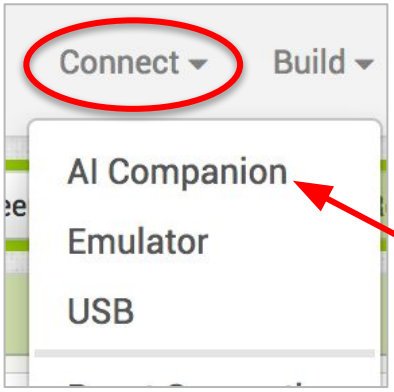
19 Complete the **when BackButton.Click** block.



TESTING

20 Test your app with the MIT AI2 companion.

- Long click on each of your markers. Make sure that the **LocationScreen** opens, displays the correct description and picture, and the correct description is read aloud.
- Try the **Back to Maps** button to make sure you can go back and forth between the first two screens.



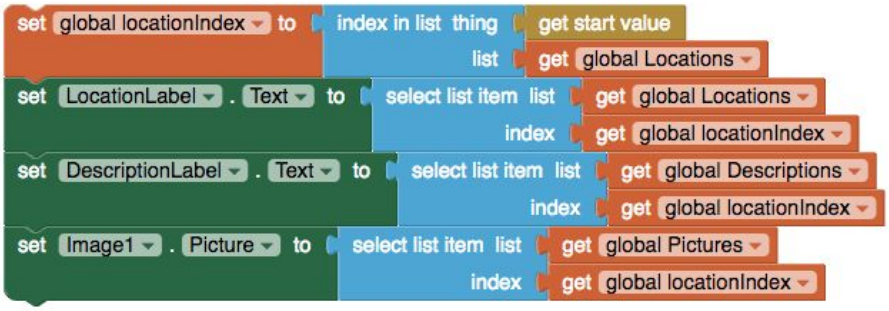
COMPUTATIONAL THINKING CONCEPTS

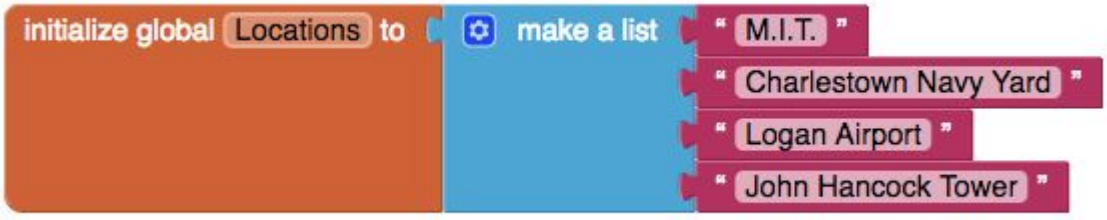
The following are the Computational Thinking Concepts used in LocationScreen.

Tour Guide

1. Naming/Variables

2. Manipulation of data and elementary data structures





3. Events