SKETCH & GUESS: PART 2
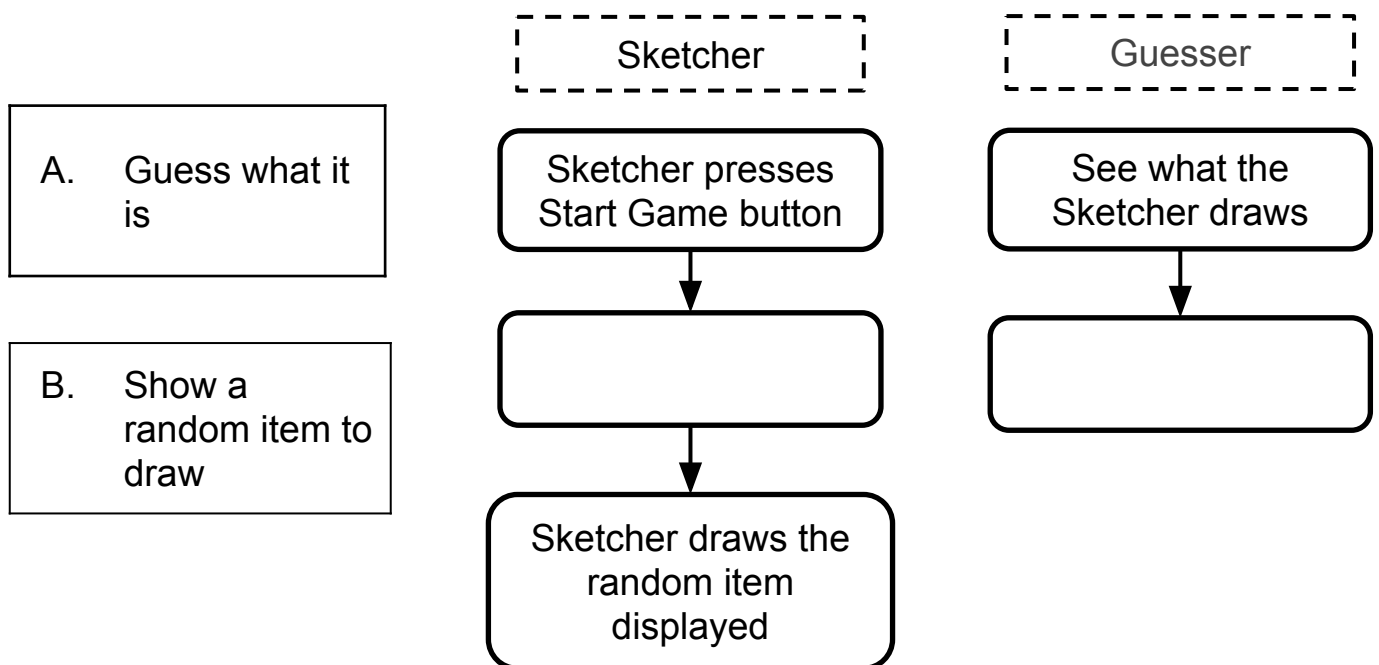
In this lesson, your drawing will be shown on your partner's screen so they can see what you have drawn on their device

SEQUENCE OF EVENTS

In Lesson 1, you built a Sketch app. To make it more fun, code it so you can draw something on your device and your partner can see the drawing on their device.

1 Review with your partner the diagrams below. Check that you understand the sequence of steps on the drawing part of the Sketch and Guess App. Fill in the empty spaces with A or B.

A.	Guess what it is

B.	Show a random item to draw

Sketcher

Sketcher presses Start Game button

↓

[ ]

↓

Sketcher draws the random item displayed

Guesser

See what the Sketcher draws

↓

[ ]

USING CLOUDDB TO DRAW ACROSS DEVICES

In this lesson, you will use the **CloudDB** component that you used in the Two-button Game.
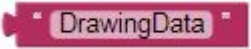
Using the **CloudDB.StoreValue** and **CloudDB.DataChanged** blocks, two devices communicate with each other through CloudDB, based on the tag.

A **tag** is a name you give to data. It works like a variable. Each **tag** has a **value**, just like variables have values.

You store a value by its **tag**, and you can see what has changed for each tag.

The suggested name of the tag to store what is being drawn is **DrawingData**.

Tags	Meaning	Sketcher (You)	Guesser (Partner)
DrawingData	The start point and end point for drawing	Store the coordinates of drawing	Get the coordinates of drawing

USING CLOUDDB TO DRAW ACROSS DEVICES

2 As the Sketcher draws, you'll store the drawing information in CloudDB. Each Guesser will receive that information in a DataChanged event, and take the stored drawing data to draw the same image on their device.

- Add to the **Canvas1.Dragged** event to store the drawing information in CloudDB. Because there are 4 pieces of information (**prevX, prevY, currentX, and currentY**), you can add those 4 values to a list and store the list.
- Add a **CloudDB1.DataChanged** event block to take the stored data and draw on **Canvas1**.
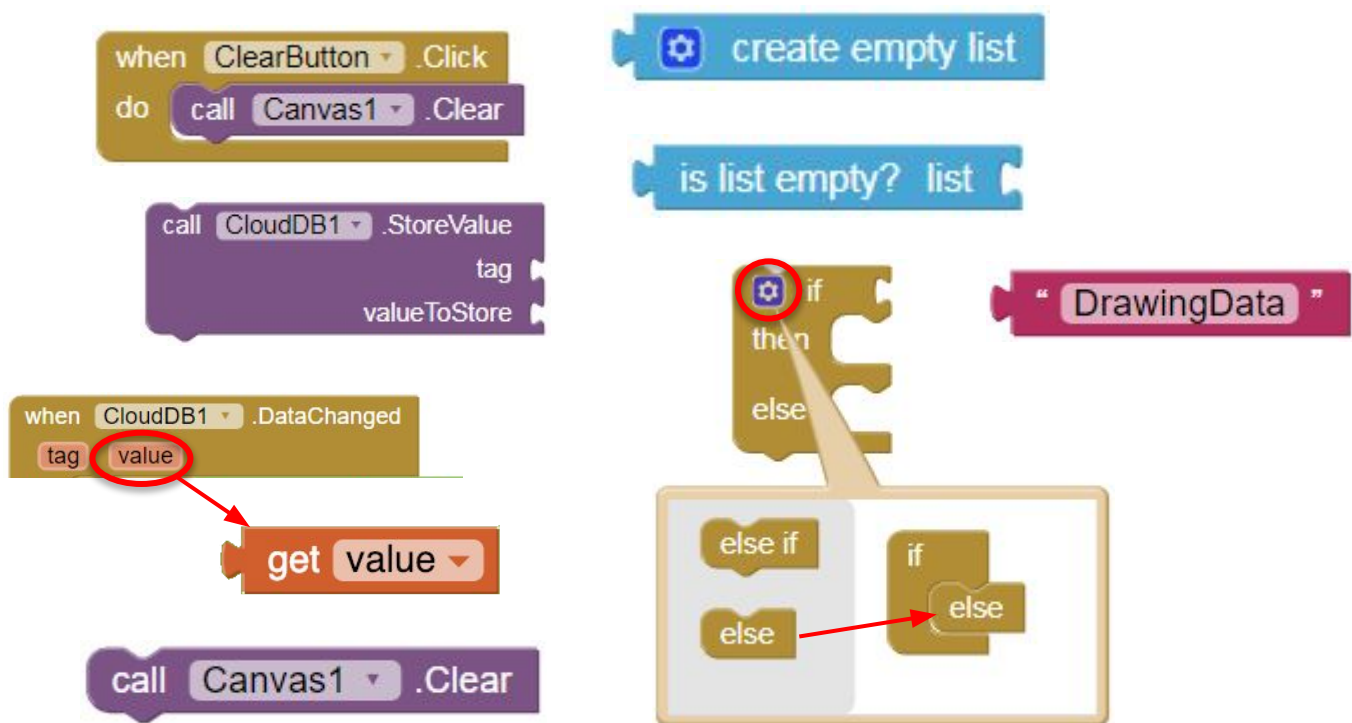
Use the blocks below.
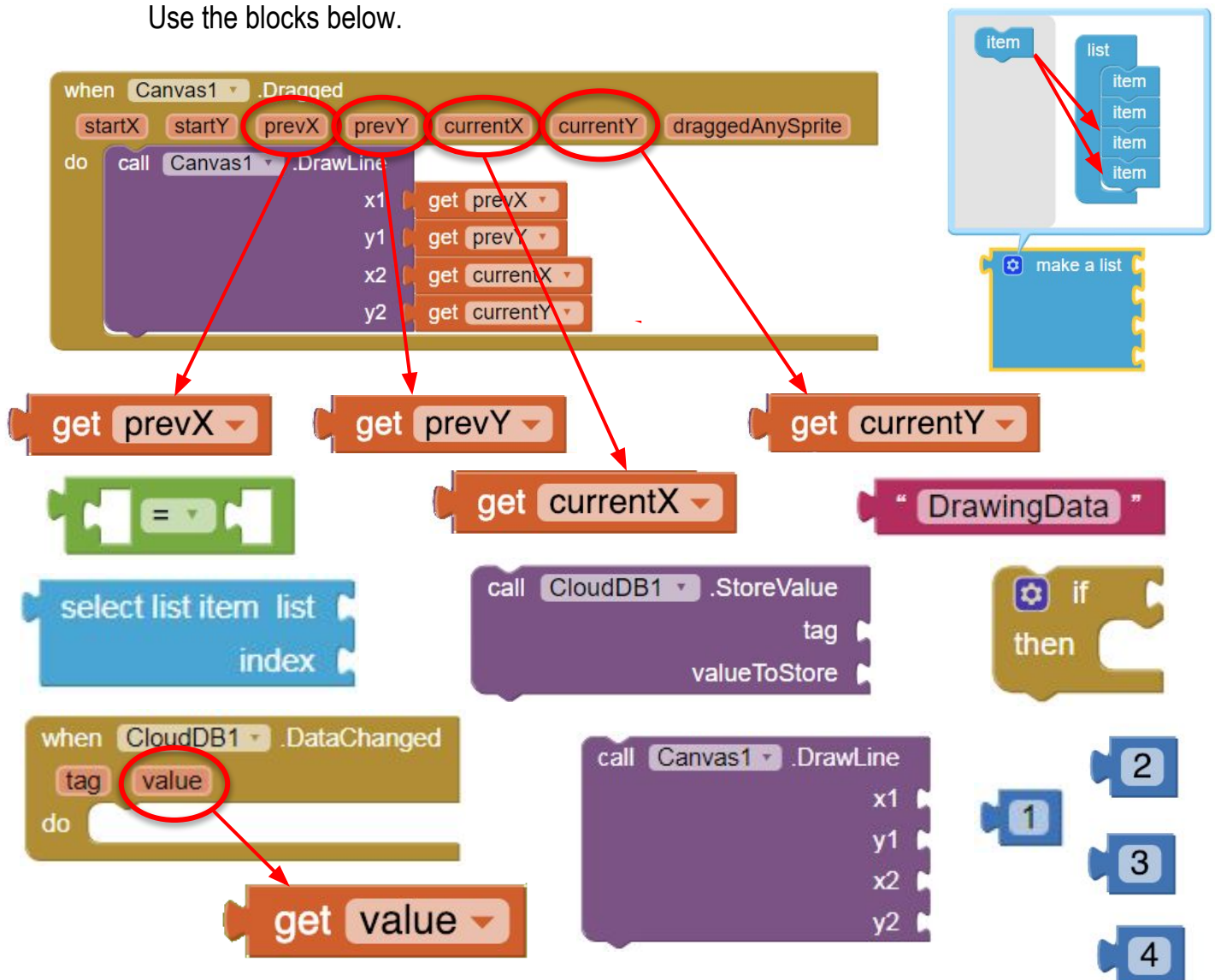
CLEAR THE CANVAS

When the Sketcher clears the screen, they need to send a message to the other device to clear that screen too.

3 Update ClearButton.Click and CloudDB1.DataChanged to store and retrieve information to signal clearing of the Canvas. A suggested way to do this is to use an empty list as the "DrawingData".
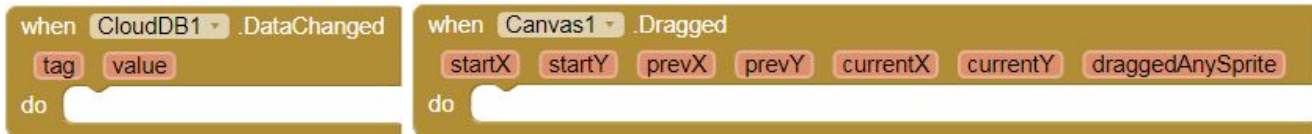
Use the blocks below.

4 Test with your partner. Build the apk using the QR code option, scan the QR code and download and install the apk on your individual devices. Can one person draw and the other see it being drawn on their device?
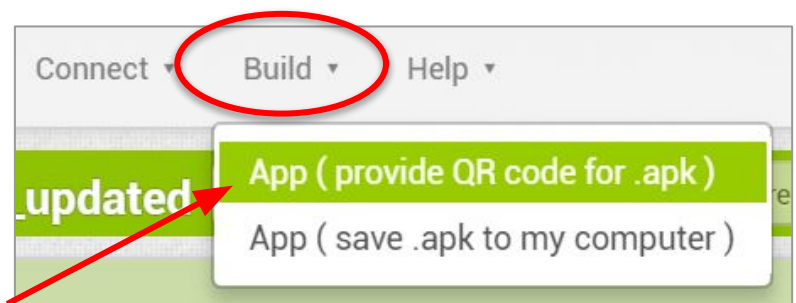
COMPUTATIONAL THINKING CONCEPTS

Sketch And Guess Part 2
1.Events
2. Conditionals
3. Naming / variables
4. Manipulation of data and elementary data structures

MIT
APP INVENTOR