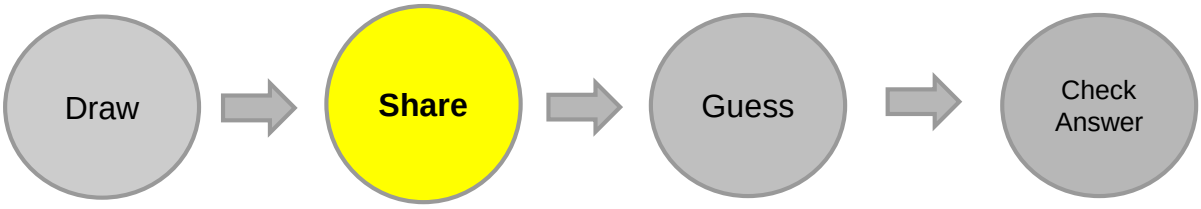
SKETCH AND GUESS

In this lesson, you will store the drawing information in the Canvas.Dragged event to CloudDB to send to the Guesser.

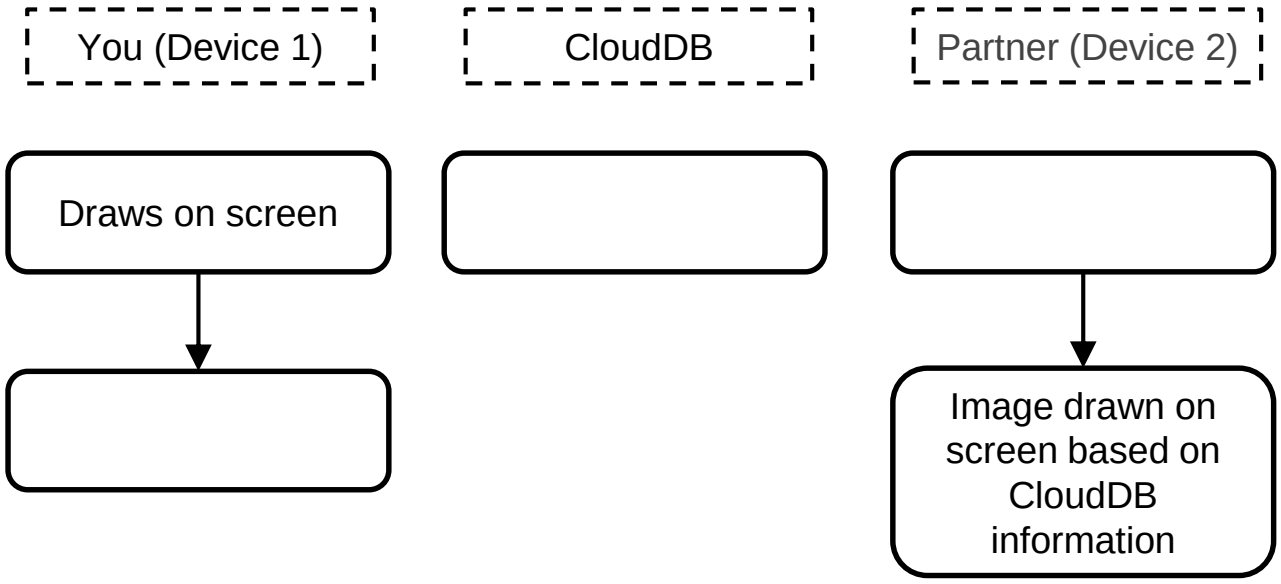


START HERE

In this lesson, you will use the CloudDB component to communicate between devices.

❑ Review with your partner the diagrams below. Fill in the empty spaces with A, B, or C .

A. Receives drawing data from CloudDB	B. Stores drawing data to CloudDB	C. Sends drawing data to all connected devices

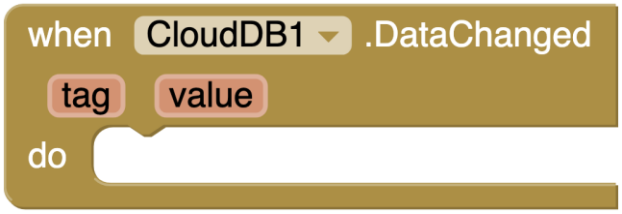


SKETCH AND GUESS

USING CLOUDDB TO DRAW

In this lesson, you will use the **CloudDB** component that you used in the Two-button Game.

Using the **call CloudDB.StoreValue** and **when CloudDB.DataChanged** blocks, two devices communicate with each other through CloudDB, based on the tag.



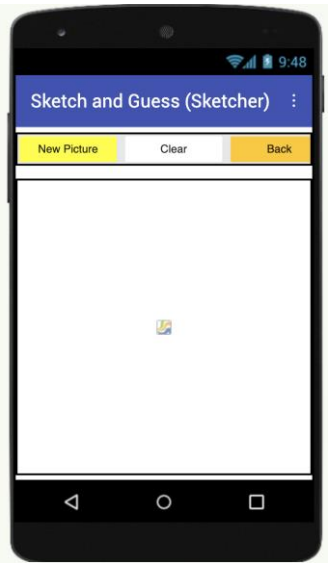
Please note that a tag is just like a variable. You can store what you sketch while your partner can get what you draw through the value stored in the tag.

In this lesson, the name of the tag is “DrawingData”.

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

SKETCH AND GUESS

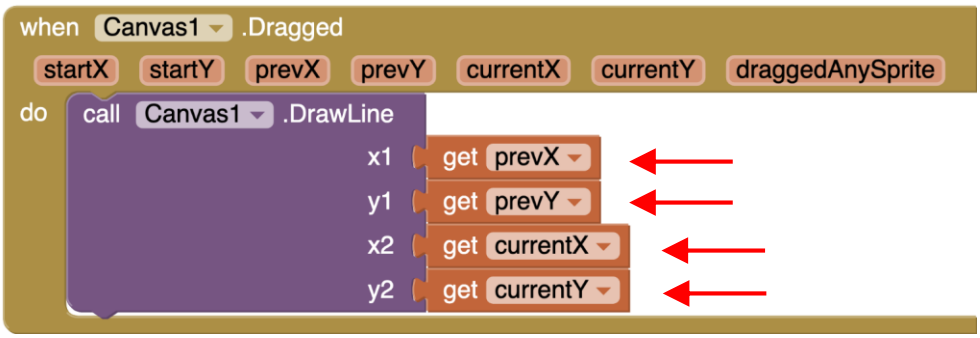
USING CLOUDDB TO DRAW ACROSS DEVICES



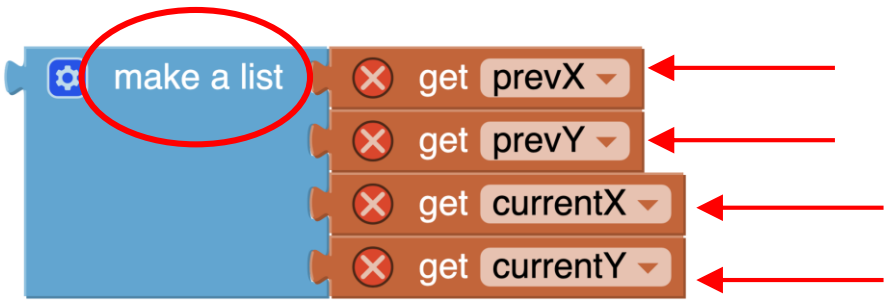
❑ Open your project developed in Lesson 2. If you have not finished Part 2, please ask your teacher for help.

To display the lines that you have drawn on your partner's screen, the lines first need to be saved on the CloudDB server using the **call CloudDB1.StoreValue** block.

Following the *Student Guide: Lesson 2*, there are four coordinates that are used to draw when you drag on the screen.



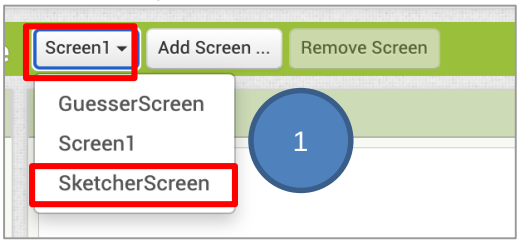
You will package those 4 coordinates in a list and store them in a single tag in CloudDB rather than using 4 separate tags.

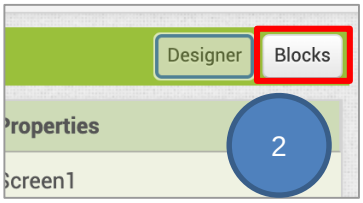


SKETCH AND GUESS

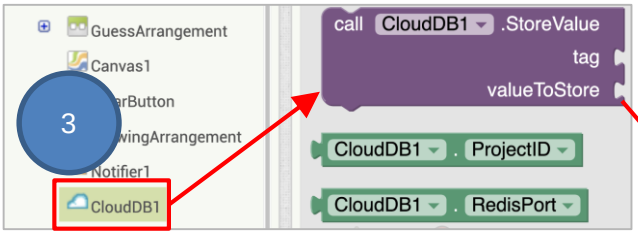
BUILD THE BLOCKS

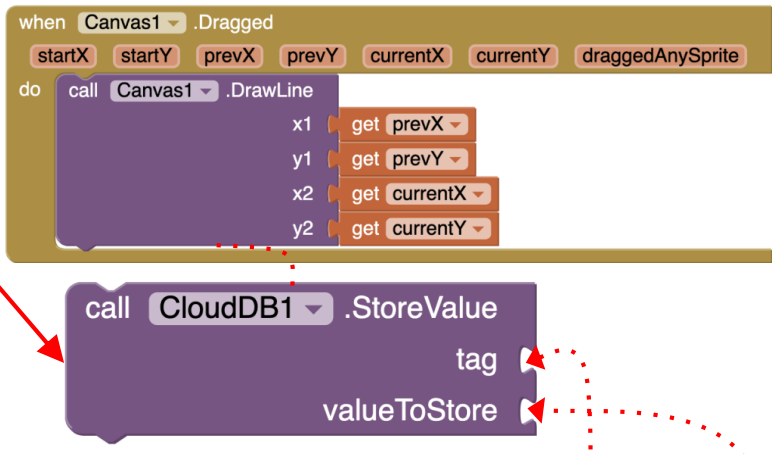
❑ Make sure you have the SketcherScreen open and are in the Blocks Editor.



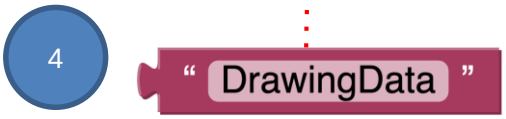


❑ Pull out **call CloudDB1.StoreValue** block from the **CloudDB1** drawer.

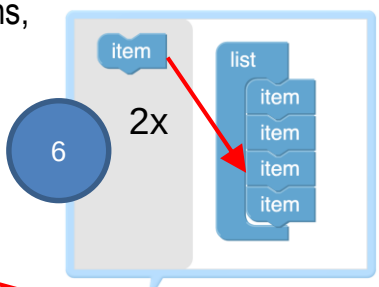


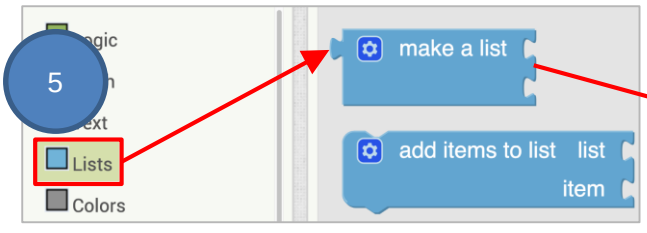


❑ Look in the Blocks Viewer window for the supplied code blocks. Find the code block **DrawingData**, and drag it to **tag**.



❑ Drag the **make a list** block from the **Lists** drawer, add 2 more items to the existing 2 items, and snap it to the **valueToStore** block.

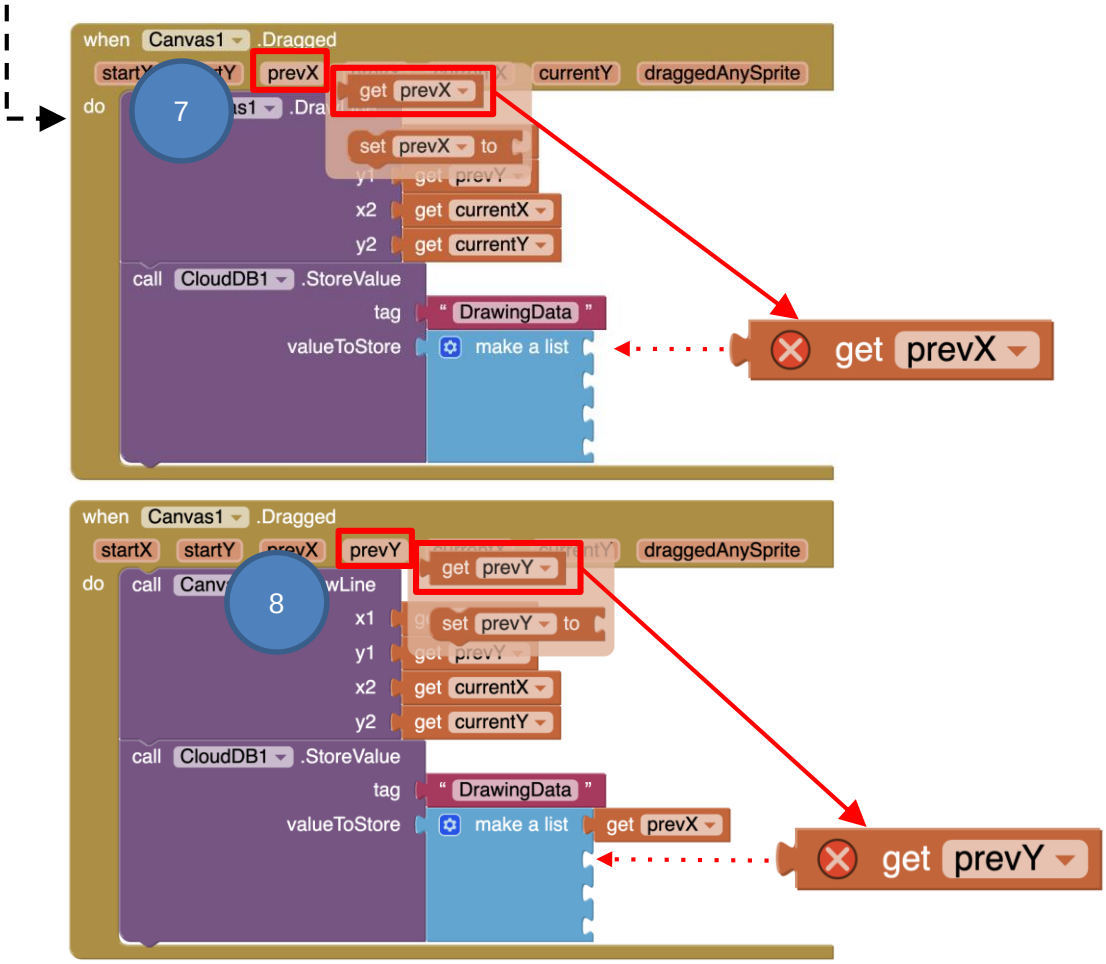




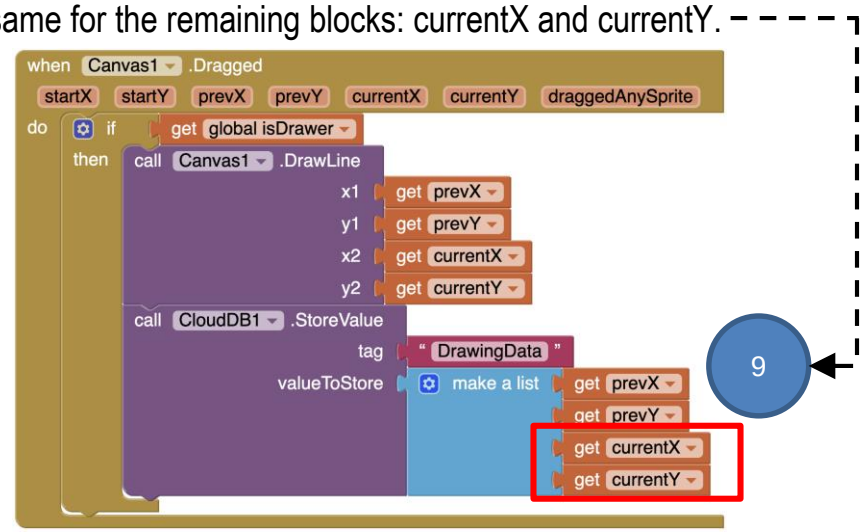
SKETCH AND GUESS

STORE THE COORDINATES IN CLOUDDB

❑ Mouse over the prevX, prevY, currentX, and currentY blocks from **when Canvas1.Dragged** block and snap those blocks to the **make a list** block.



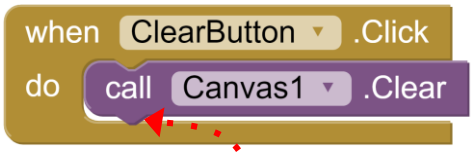
❑ Do the same for the remaining blocks: currentX and currentY.

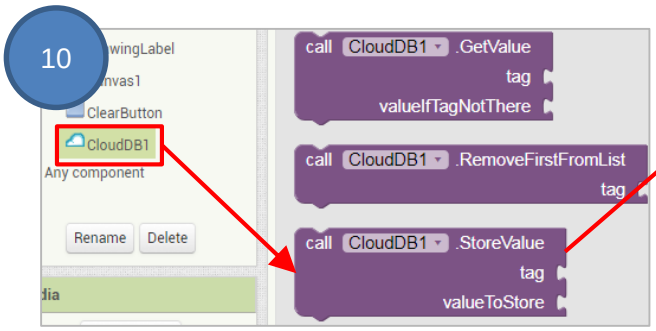


SKETCH AND GUESS

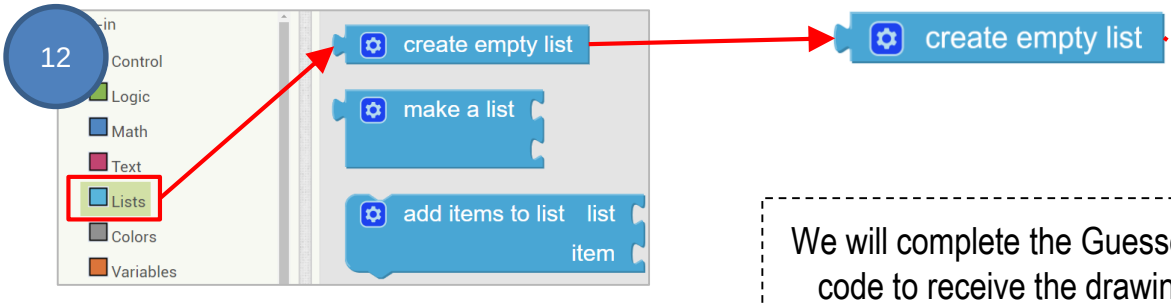
CLEAR THE DRAWING

- ❏ When the Sketcher clears the screen, they need to send a message to the other tablet to clear the screen too.
- ❏ To signal to the guesser to clear the Canvas, we will store an empty list using the "DrawingData" tag in CloudDB.





- ❏ Look in the Blocks Viewer area for the supplied code blocks. Find the code block "DrawingData", right-click on it and duplicate the block.

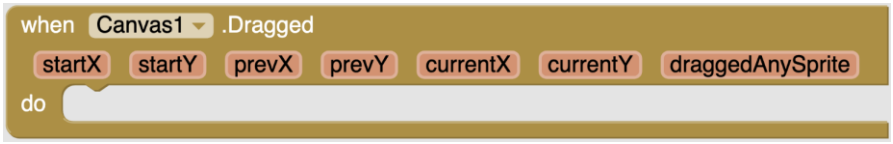


We will complete the Guesser's code to receive the drawing information in the next lesson!

SKETCH AND GUESS

COMPUTATIONAL THINKING CONCEPTS

The following are the computational thinking concepts learnt in Lesson 3.

L3U8.6-8.8 Sketch And Guess
1. Events 
2. Naming and Variables 
3. Data Structures