






# SKETCH & GUESS: PART 3

In this lesson,  
you will add guessing  
to your app



## VARIABLES AND TAGS

In this lesson, you need to identify who is the Sketcher and who is the Guesser.

You will use **isSketcher**, a boolean variable (either true or false) to keep track of who the Sketcher is in the app. If you are the Sketcher, **isSketcher** is set to true; otherwise, **isSketcher** is set to false. You also will use a variable called **userID**, an ID that is randomly generated when you run the app.

Variable	Meaning	Drawer	Guesser
	Tells if user is the Sketcher		
	ID for tracking who is drawing		

You also need to store the Sketcher's "userID" as the value of the **CurrentSketcher** tag in CloudDB, telling the Guesser who the Sketcher is. Each user playing the app has their own unique userID.

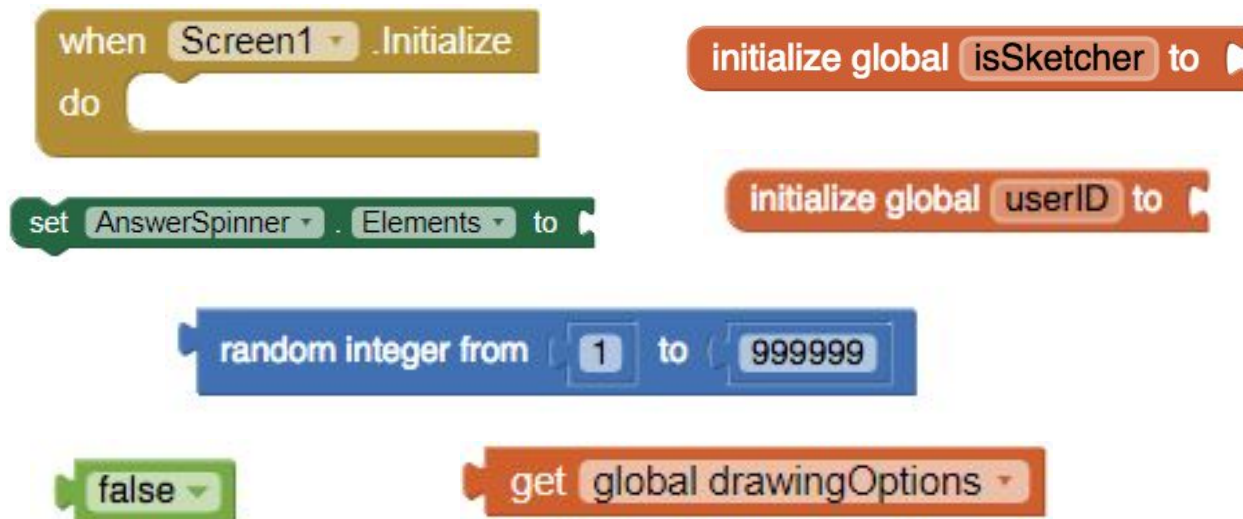
Tags	Meaning	Sketcher	Guesser
	The start point and end point for drawing.	Store the coordinates of drawing	Get the coordinates of drawing
	Who is the Sketcher	Stores their userID.	Gets the Sketcher's userID.

## INITIALIZE VARIABLES AND COMPONENTS

1 Initialize two variables. Suggested names are **isSketcher** and **userID**, according to the explanation on the previous page.

2 Initialize the **AnswerSpinner** Elements to the **drawingOptions** list so that appears when the user clicks on **AnswerSpinner**.

Use the blocks below.



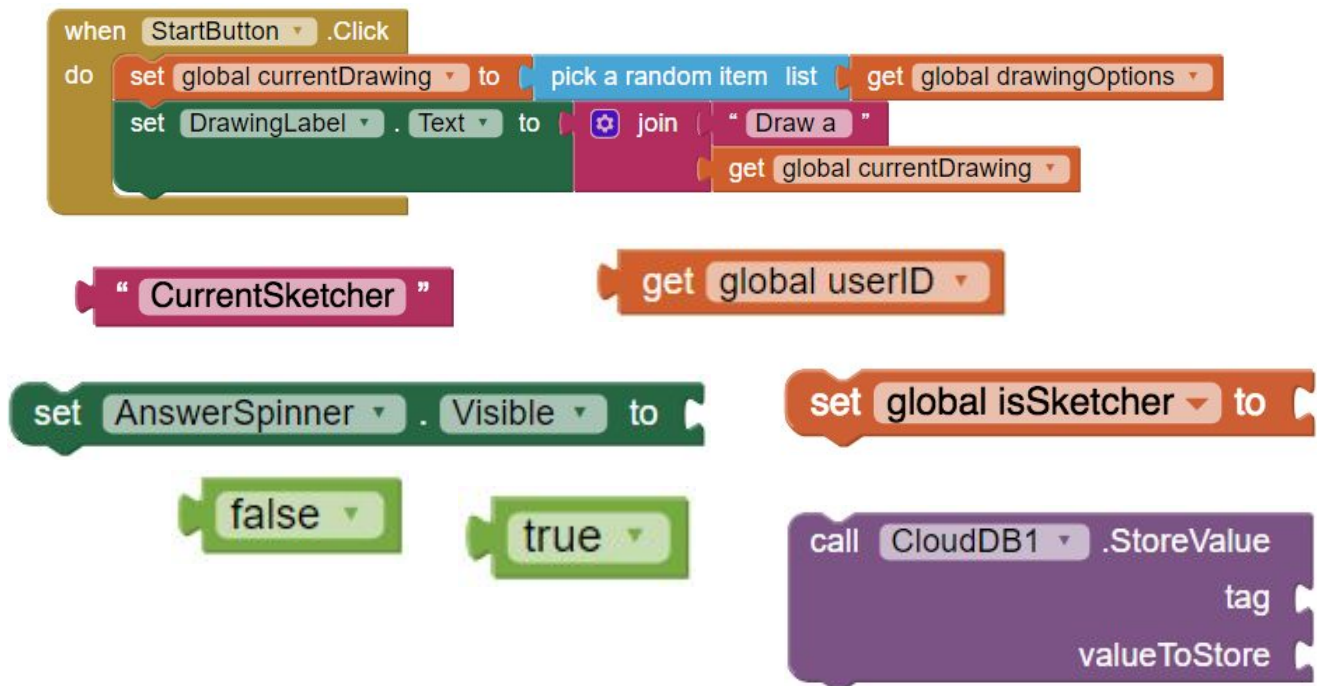
## CODE THE SKETCHER

3

Whoever presses the Start button first will be the Sketcher. Add code blocks to the StartButton.Click event to do the following:

- Set variable isSketcher to true to keep track that the current user is the Sketcher.
- Store the userID of this player as the “CurrentSketcher” in CloudDB.
- Make the AnswerSpinner invisible, since the Sketcher does not need to guess what is being drawn.

Use the blocks below.



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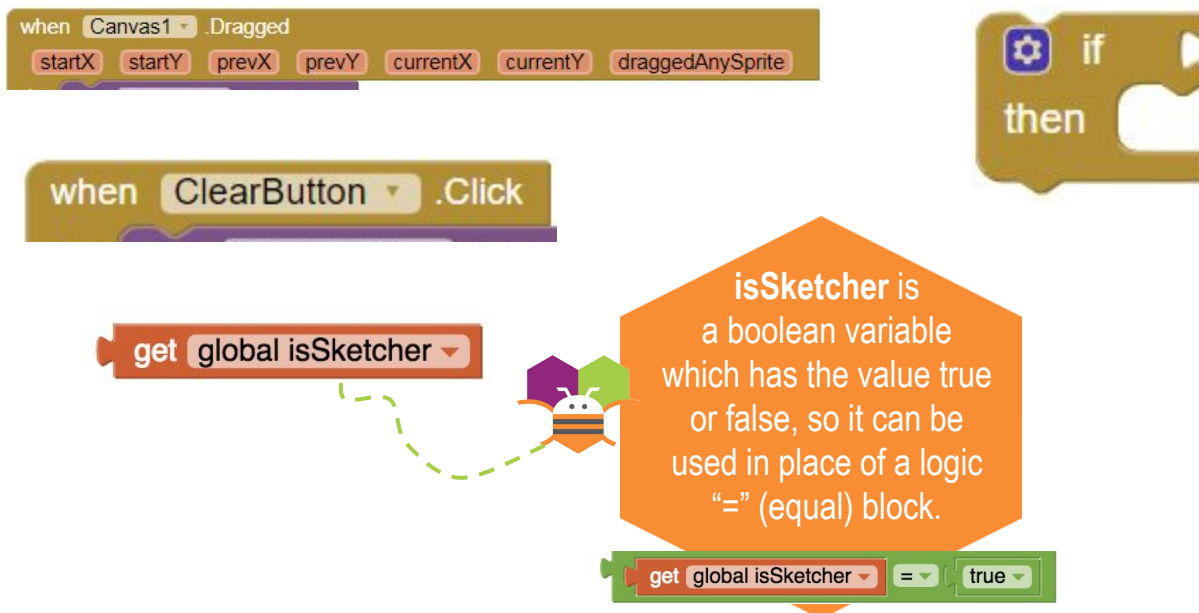
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## CHECK WHO IS THE SKETCHER TO DRAW AND CLEAR CANVAS

- 5 Only the Sketcher has the right to draw and also clear the drawing, so add an **if-then** block to both Canvas1.Dragged and ClearButton.Click event block to check if the user is the Sketcher before executing the actions.

Use the following blocks.



## CHECK FOR DUPLICATE DRAWING

You can improve your app by preventing duplicate drawing within the app.

Since the line is drawn on the Sketcher's device in the **Canvas1.Dragged** event, there is no need to draw the line again for the Sketcher in the **CloudDB1.DataChanged** event.

Only the Guesser needs to draw the line, based on the **CloudDB1.DataChanged** event.

- 6 Update the **if get tag = "DrawingData"** block in **CloudDB1.DataChanged** to test if the tag is "DrawingData" *and* the current user is *not* the Sketcher (is a Guesser!).

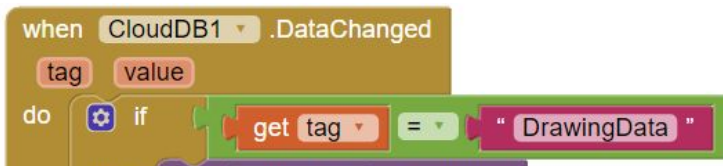
get global isSketcher

not

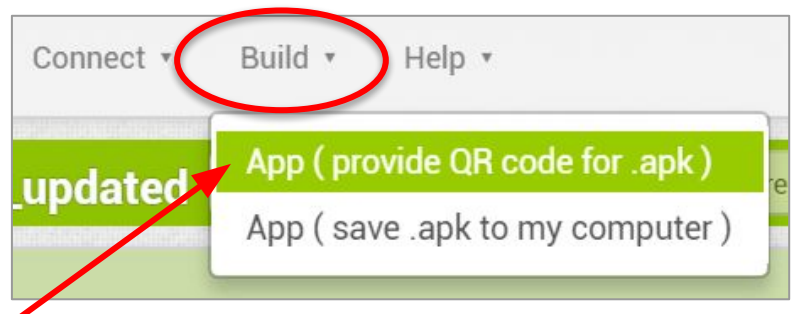
and



and means  
that both sides of the  
**and** must be true for  
the whole block to be  
true



- 7 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. ----->



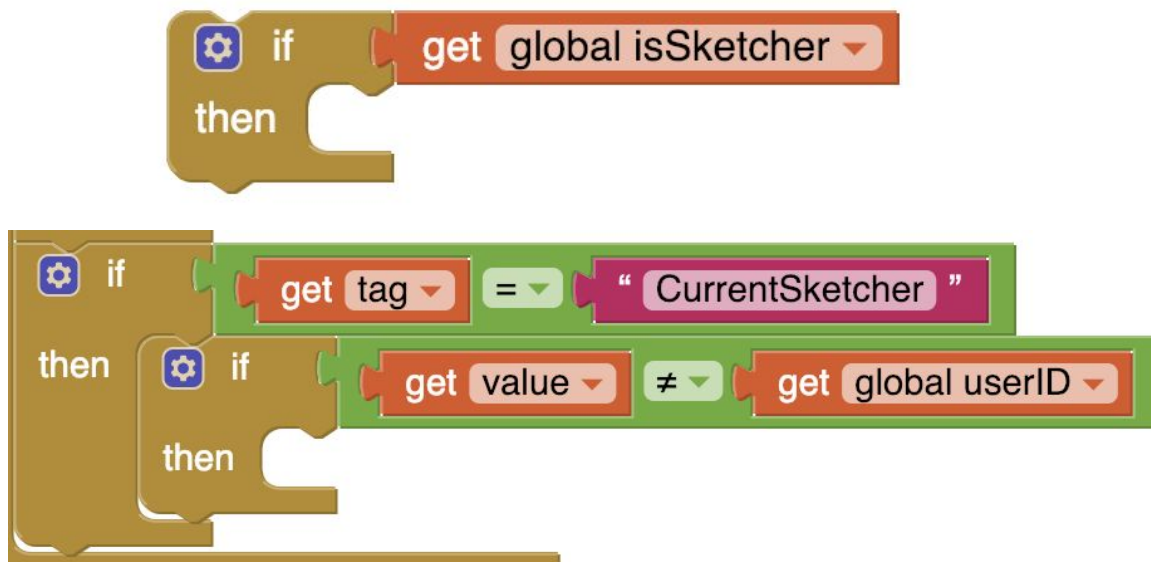


## COMPUTATIONAL THINKING CONCEPTS

The following are the Computational Thinking Concepts learned in Part 3.

### Sketch And Guess Part 3

#### 1. Conditionals



#### 2. Naming / variables



#### 3. Operators

