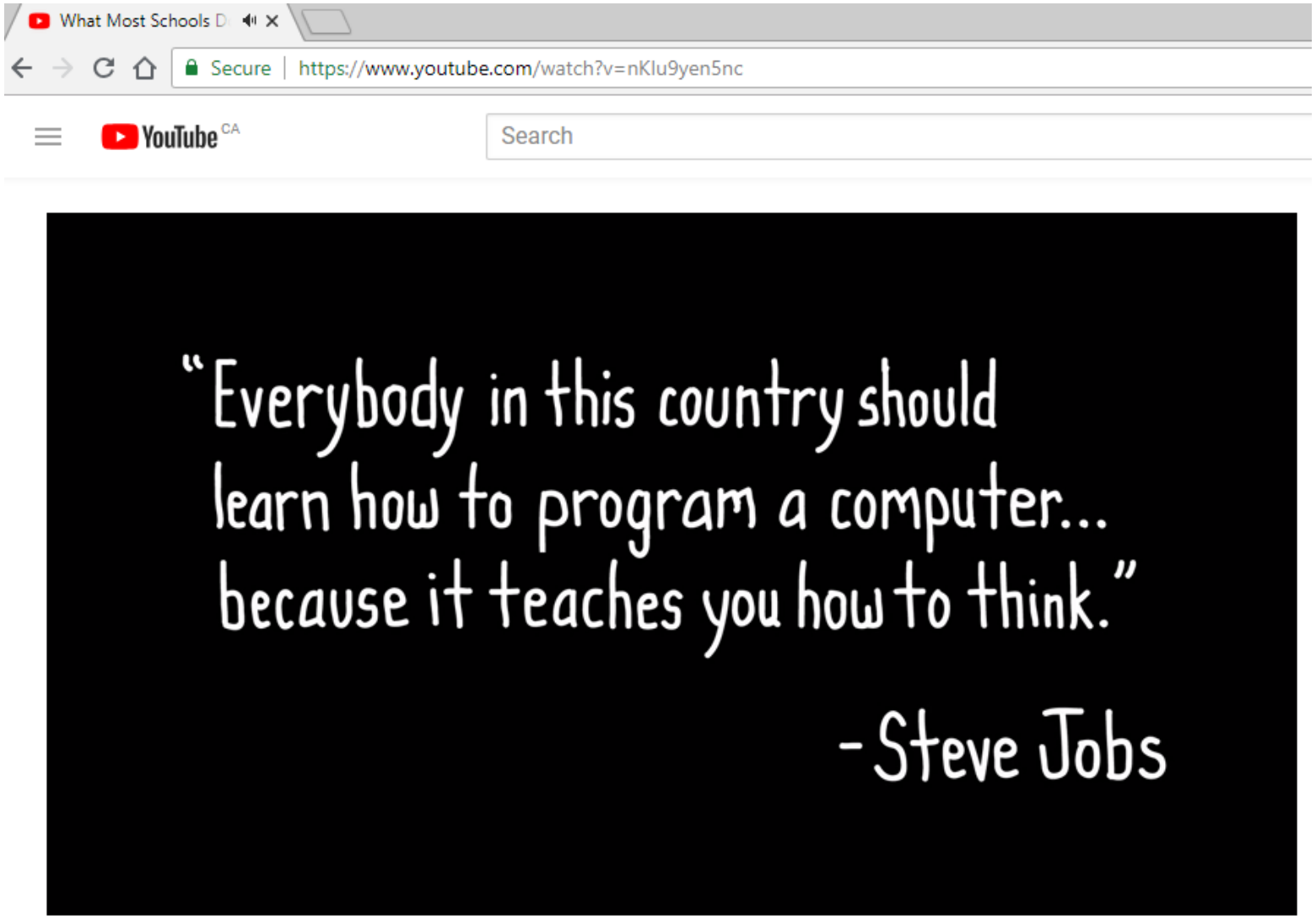
Introduction to AppLab

Widgets & Graphical User Interfaces



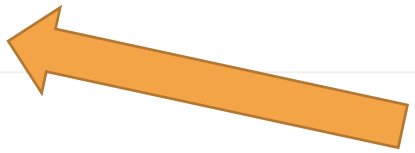
In 2013, the tech industry was concerned about the shortage of good programmers.

This video started circulating.

https://www.youtube.com/watch?v=nKIu9yen5nc

What Most Schools Don't Teach

14,415,893 views

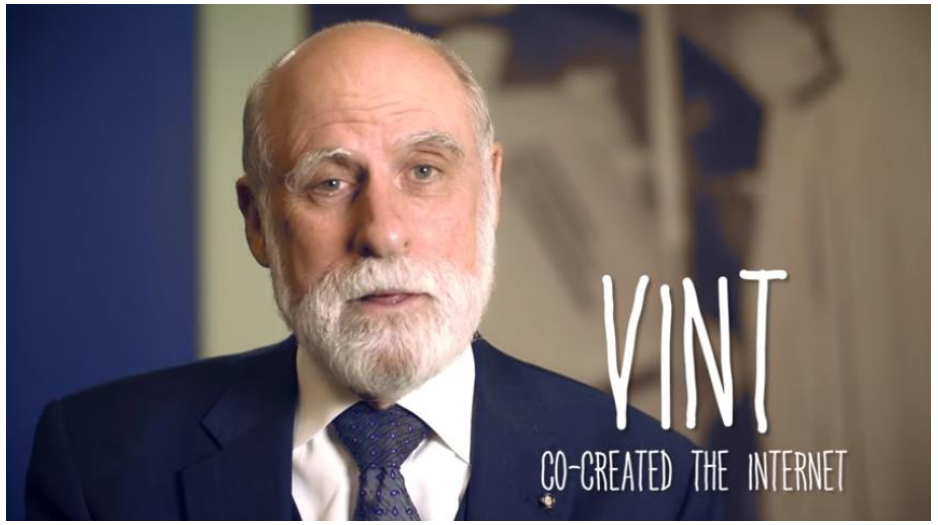


What Most Schools Don't Teach - YouTube

https://www.youtube.com/watch?v=nKIu9yen5nc

Feb 26, 2013 - Uploaded by Code.org

Learn about a new "superpower" that isn't being taught in 90% of US schools. Starring Bill Gates, Mark ...



To train the needed programmers, many tech leaders have given money and time to get code.org's on-line courses running.

Code.org - Projects

Secure | https://studio.code.org/projects#/

My Dashboard | Course Catalog | Projects | Professional Learning | Hi Gorski

Projects

Over 24 million projects created

My Projects | Public Projects

Start a new project

 Play Lab

 Artist

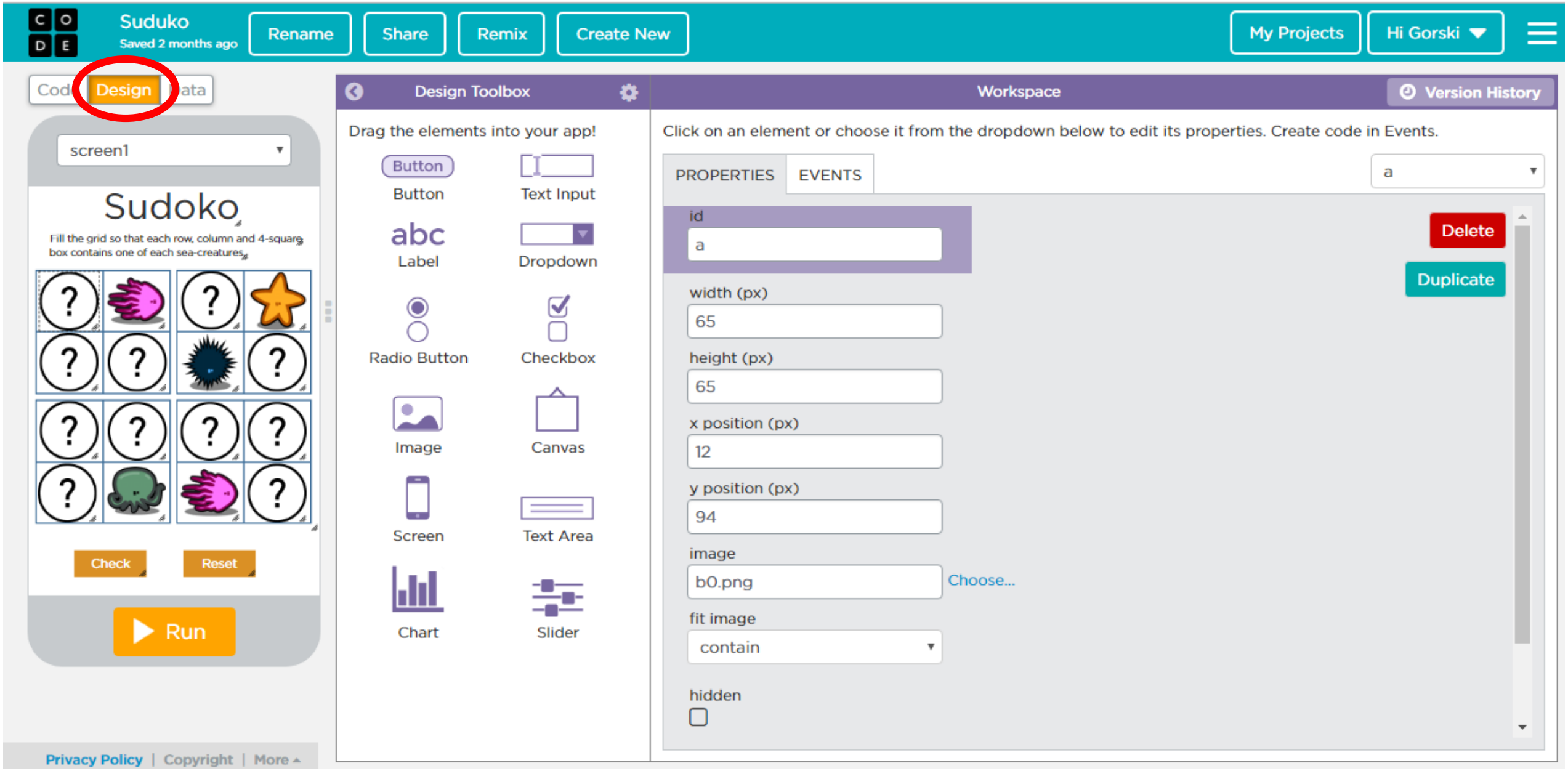
 App Lab

 Game Lab

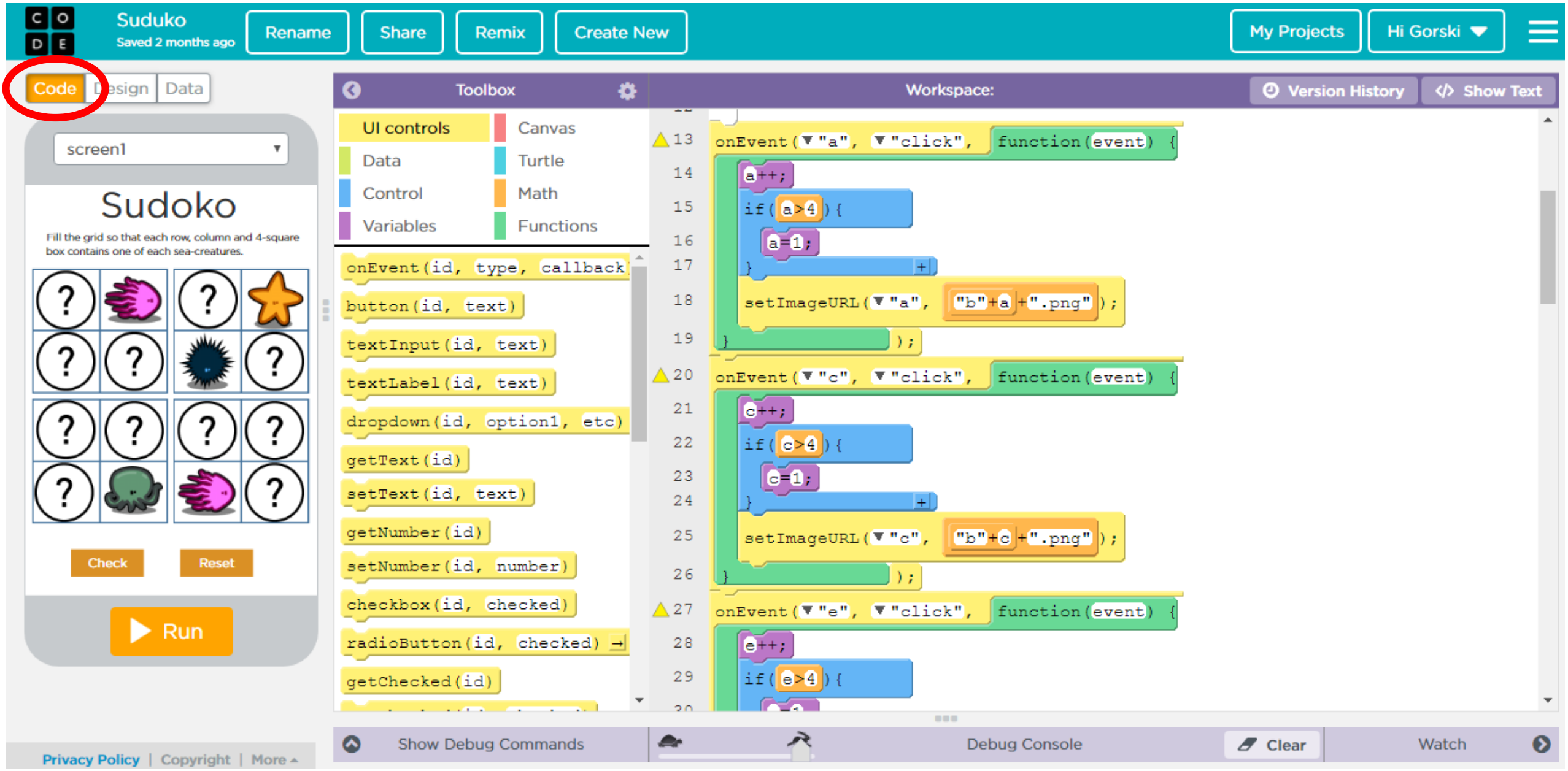
View full list

	Name	Updated	
	Suduko	6/26/18 4:03 PM	Rename Publish Delete
	SomethingSomething	6/26/18 4:01 PM	Rename Publish Delete

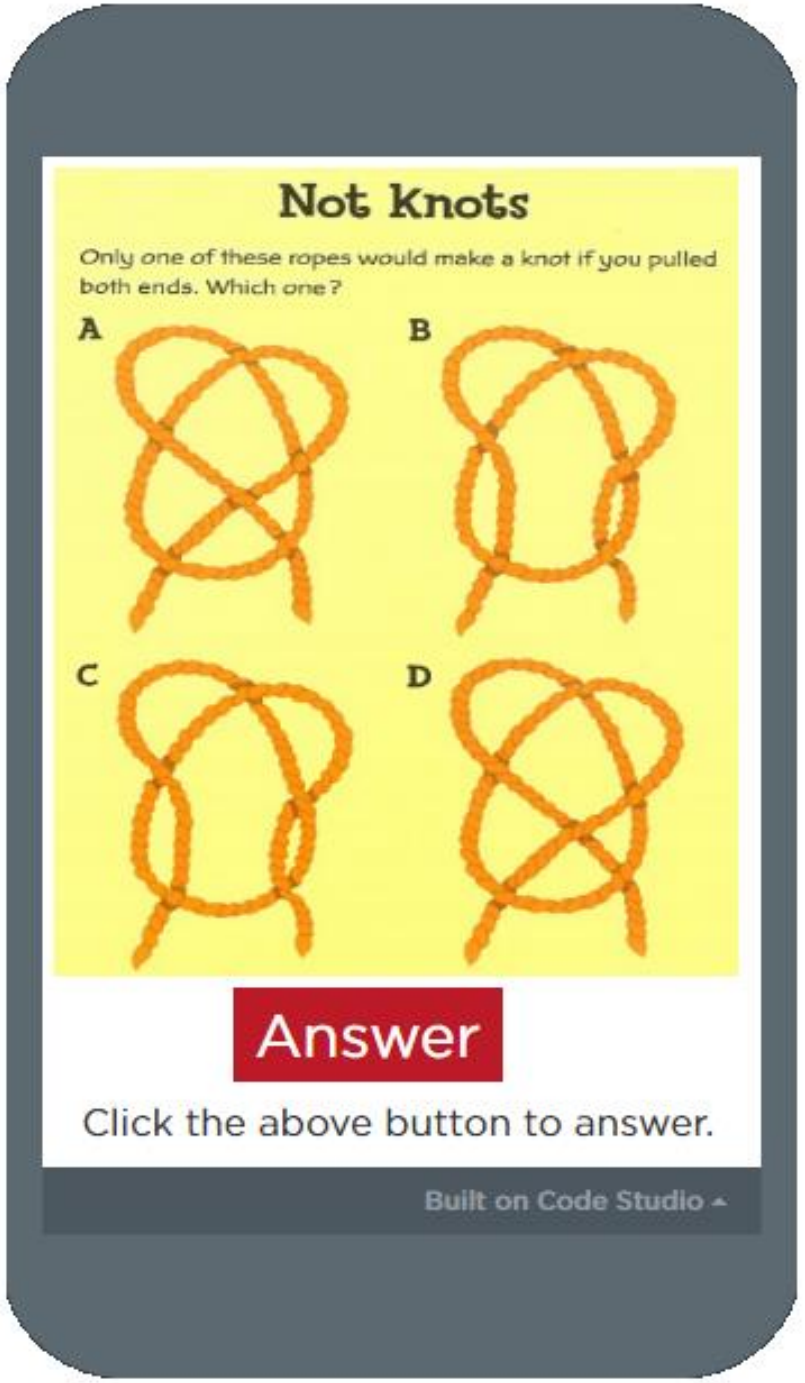
Design Mode – setting up the widgets on the screen



Code Mode – setting up blocks for the program



Run Mode – seeing if your code works

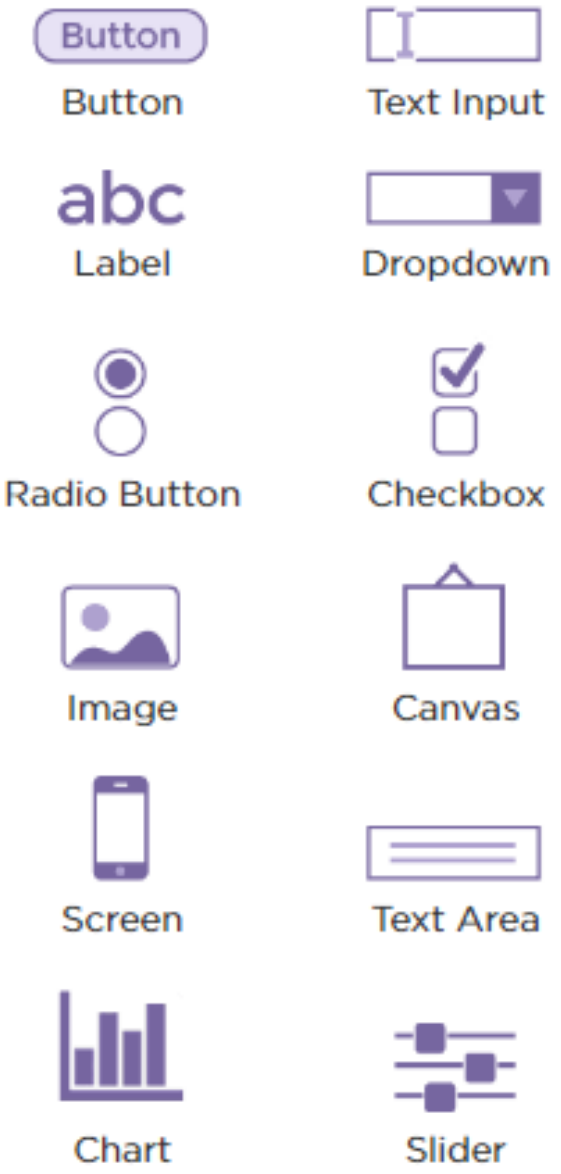


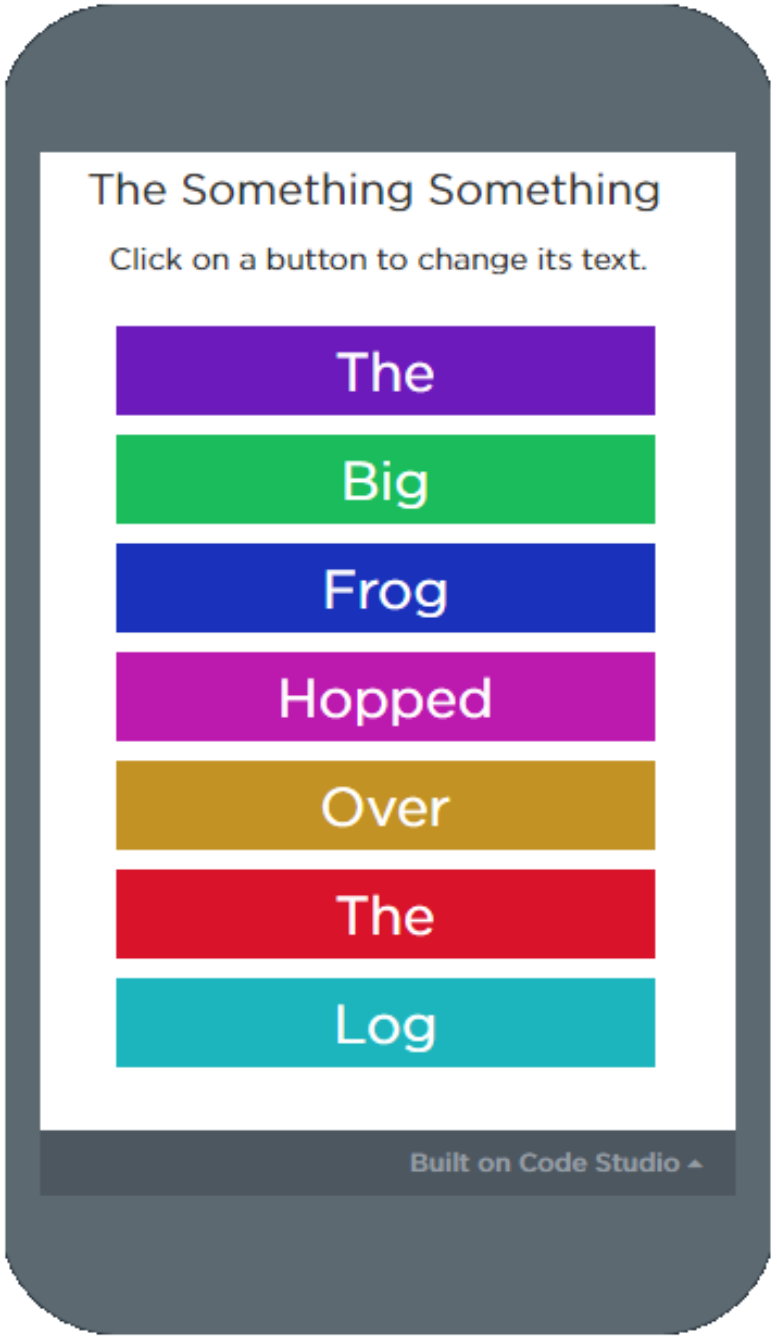
How many widgets are on this screen?

Which widget types are on this screen?

How many widget types are on this screen?

Widget Types:





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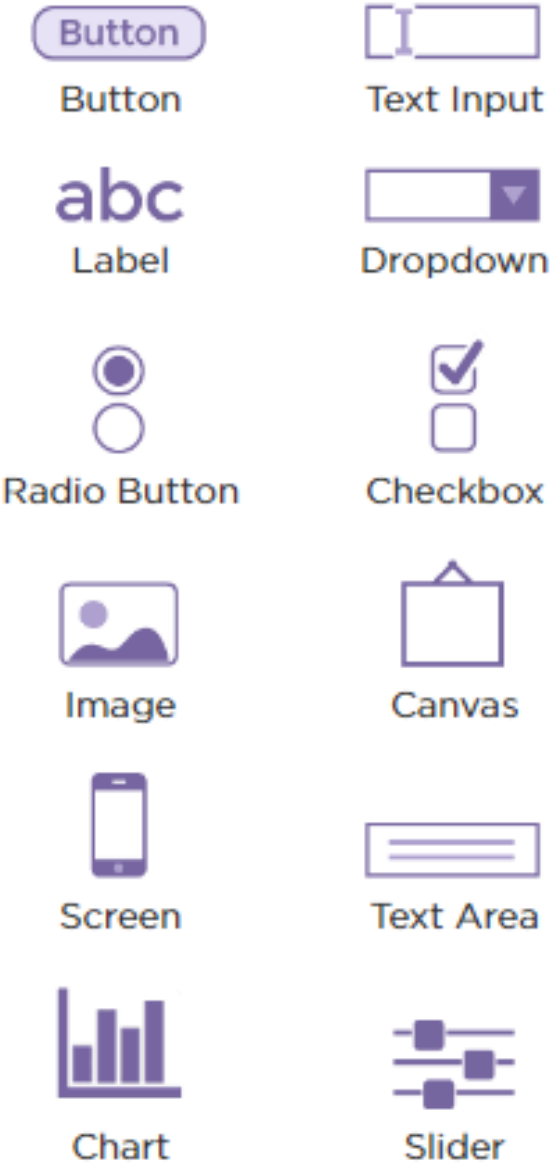

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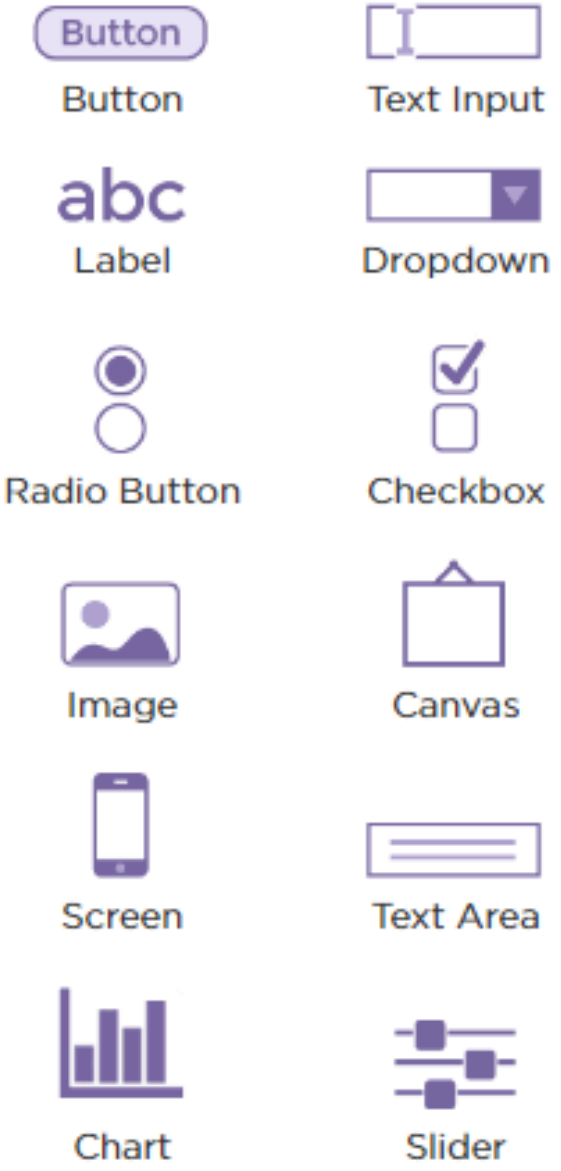
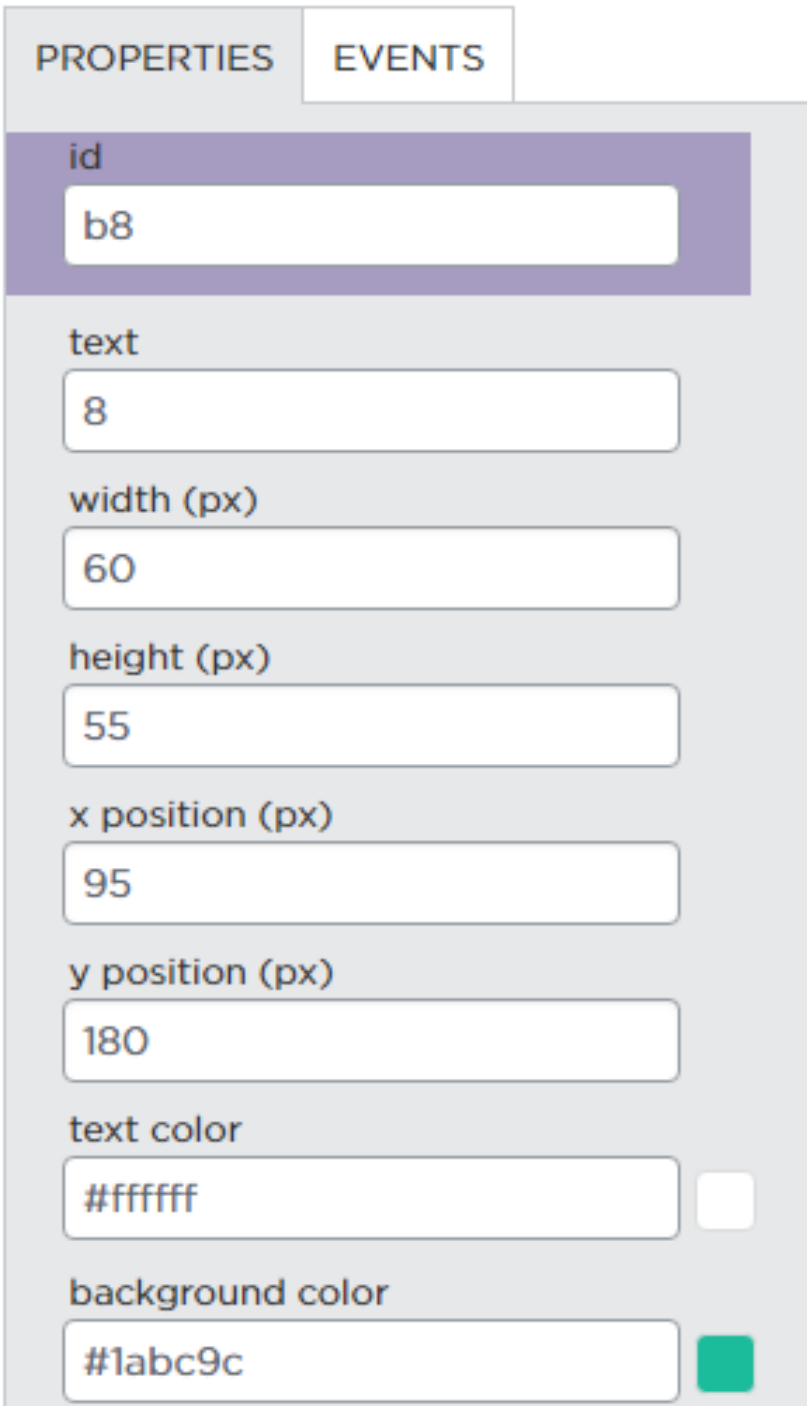


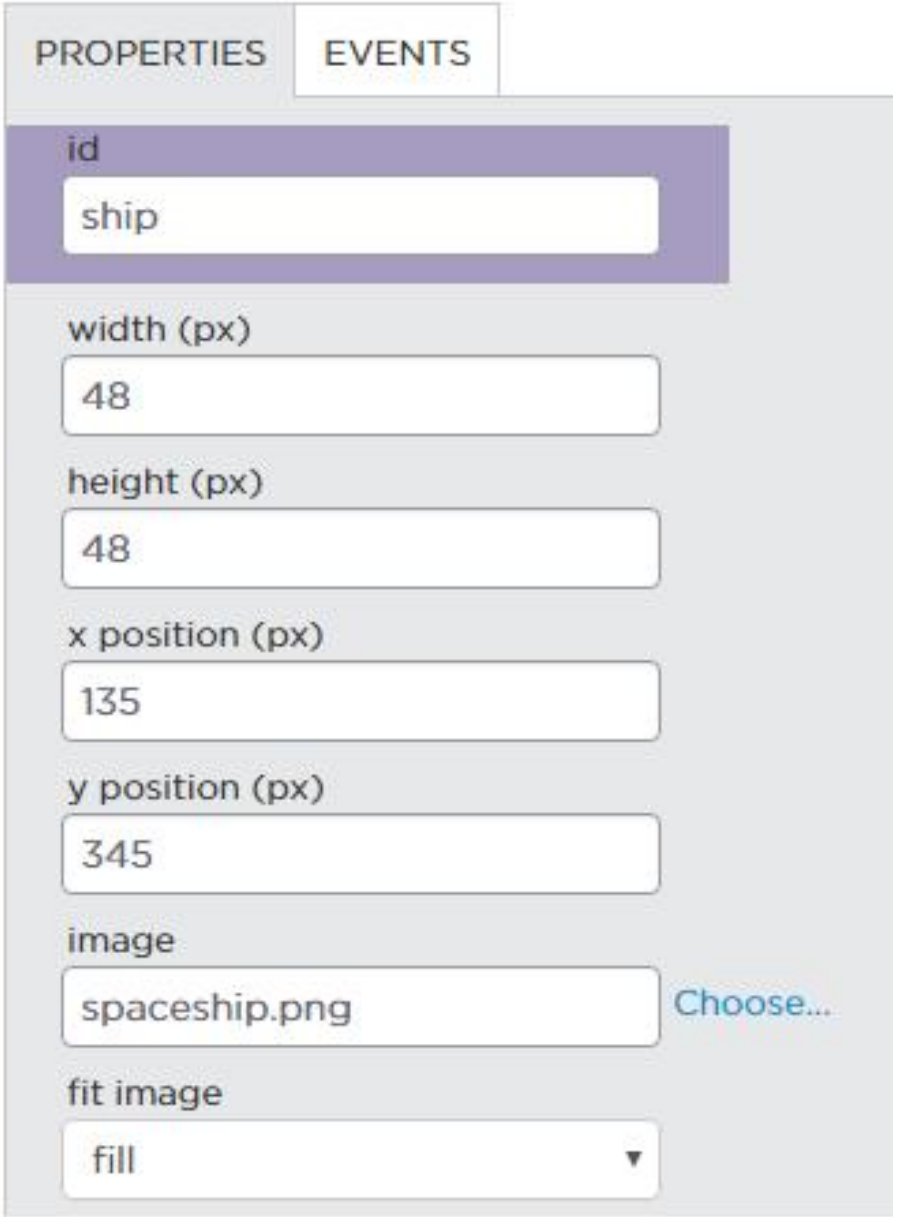


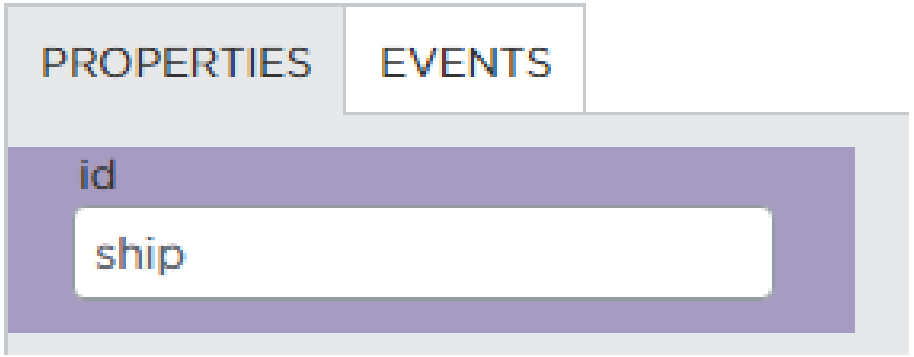
Each widget has properties that can be altered.

Identify a button properties on this screen.

What widget type is the spaceship?

What is its widget id?





The id is an important property.
It is the name of the widget inside the code.

If the widget is a button OR it will change, it needs a meaningful id.
A meaningful id make the code easier to read.

```
onEvent("Right", "click", function(event) {
  var shipX = getXPosition("ship") + 15;
  var shipY = getYPosition("ship");
  setPosition("ship", shipX, shipY, 48, 48);
});
```

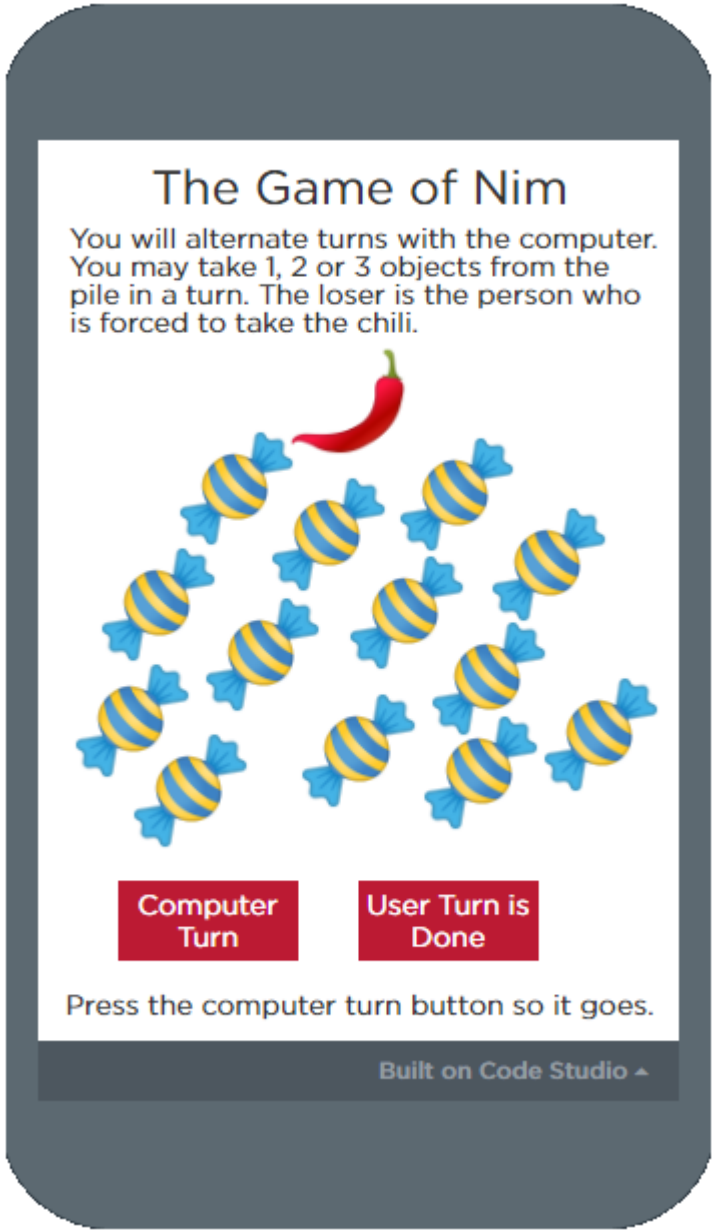
Not all ids are possible choices.
Which of the following are valid?

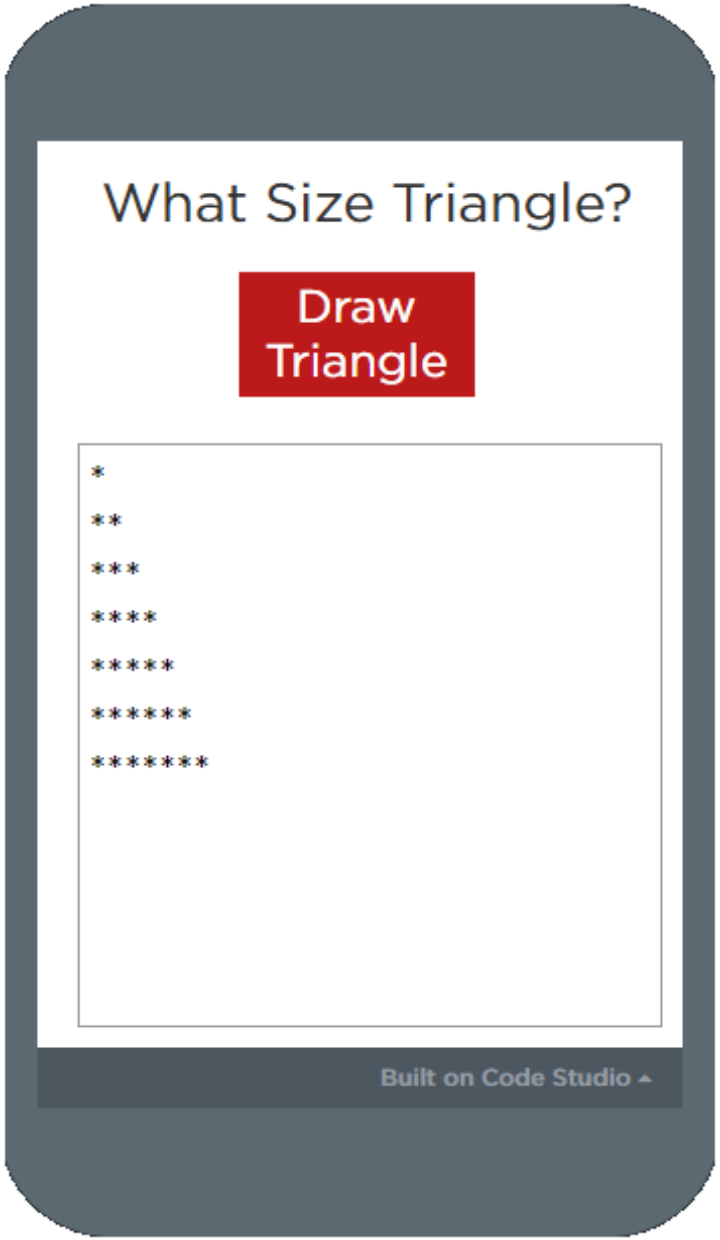
multiply	@school	Kitty_cat	2Price
First name	Last.name	Price$	Price2

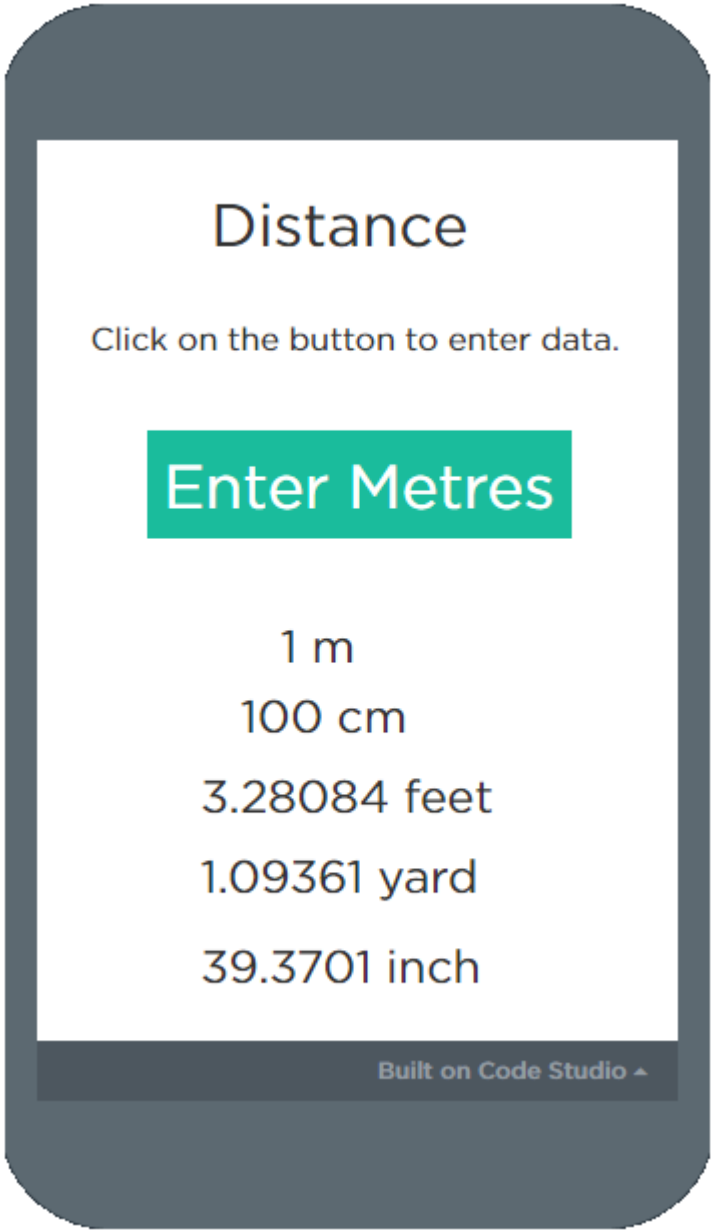
Id Naming Rules

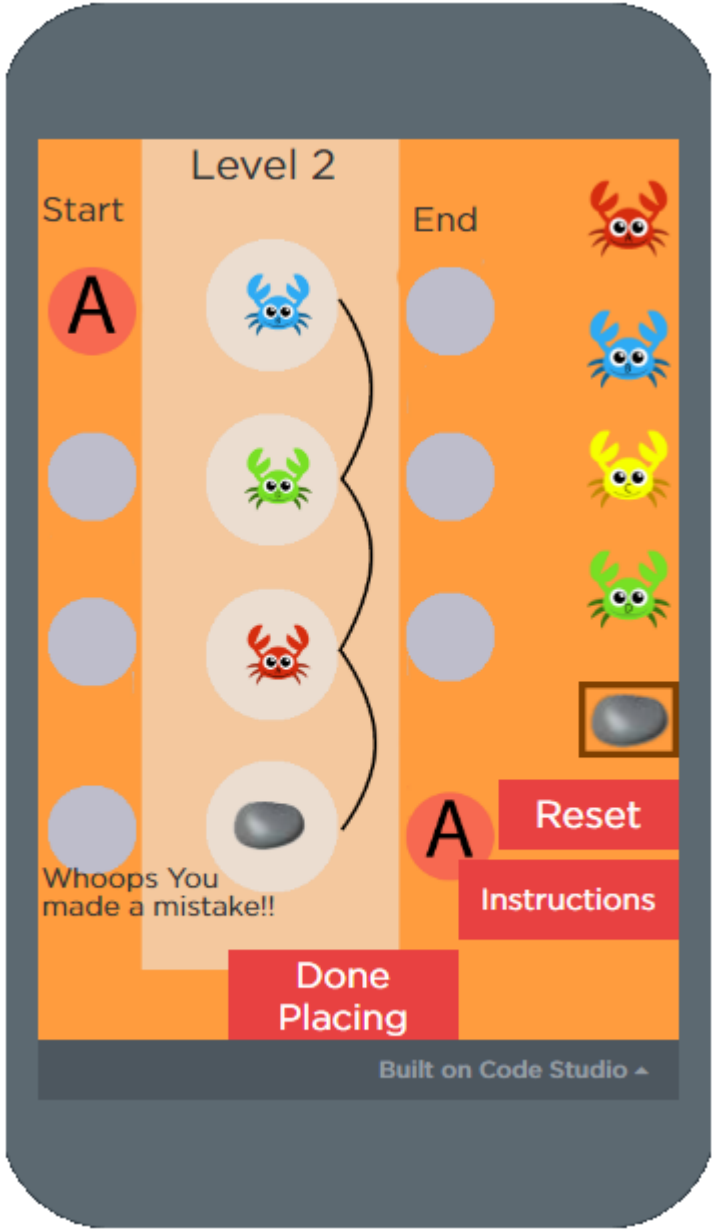
1. Can't begin with a number
2. Can't have a space
3. Can't have odd characters. _ is NOT an odd character.
4. Should be meaningful

Some other AppLab Programs we will make:









Still more AppLab Programs we will make:

What types of widgets?