

Funny Name Generator

Introduction

Scratch is a visual programming language suitable for children and teens to create their own interactive stories, games and animations. Projects can also be uploaded and shared with the Scratch community via the Scratch website for others to enjoy.

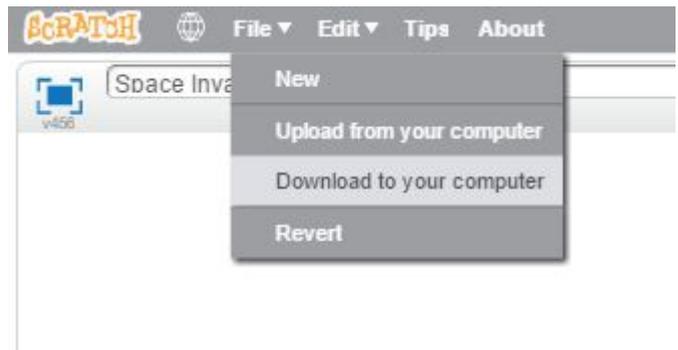
In this easy to follow tutorial we'll be learning about all the aspects of designing our very own silly name generator, covering previous topics such as inputs & outputs and lists. Silly names will be randomly generated at a touch of a button and can be used over and over again.

Let's get started by first loading Scratch. You can either install Scratch on your computer or load it via your web browser by navigating to <https://scratch.mit.edu/>

Top Tip

Don't forget to save your work regularly. It's good practice to get in the habit of saving any progress you've made. So when you're feeling great after solving a coding problem, save it, save it, save it!

The save options may differ slightly between Scratch versions but head on up to the File option in the top left and you'll find it.

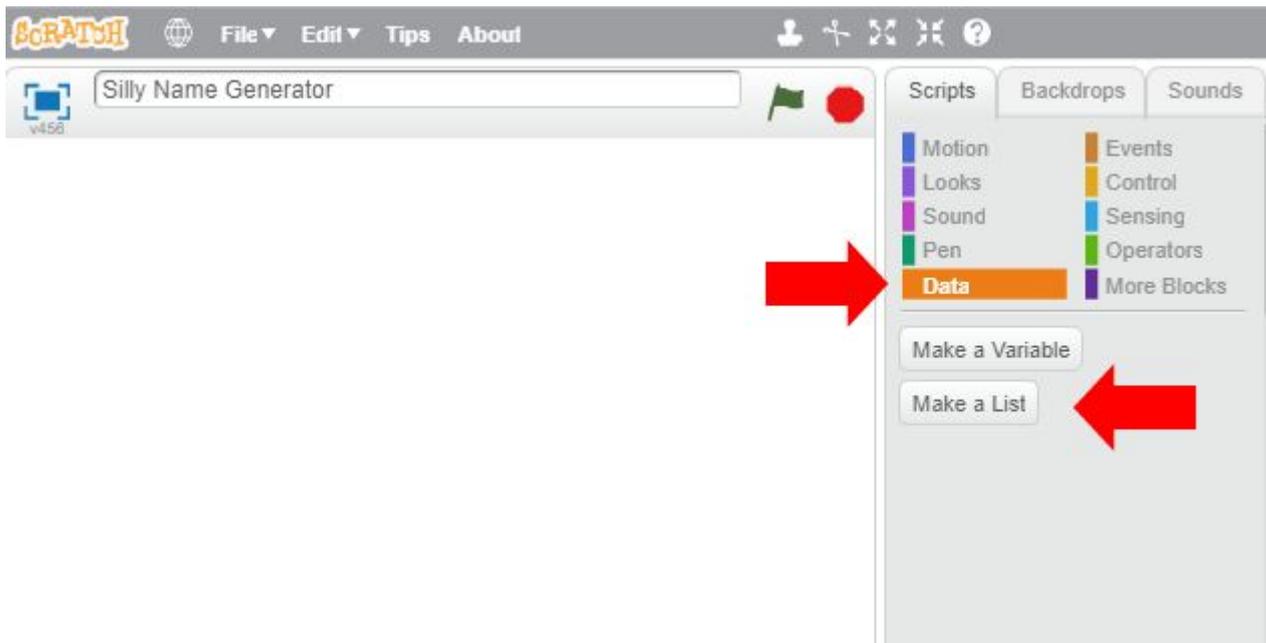


Let's get started

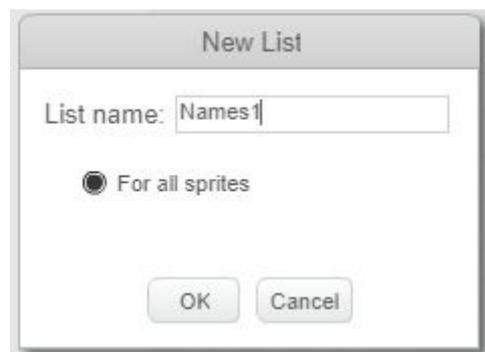
Step 1

The basic idea behind our silly name generator is for the computer to select random words from a couple of lists and combine them together to form our silly name. The fun thing about this project is that we don't know what name is going to be presented to us.

The first step is to build the lists that will hold all the words for the computer to randomly select. To do this we first need to head over to the Data section and select the Make a List option.



It is here that we are going to make our two lists of words. Let's call our first list Names1 and make sure it's available for all sprites as shown below.



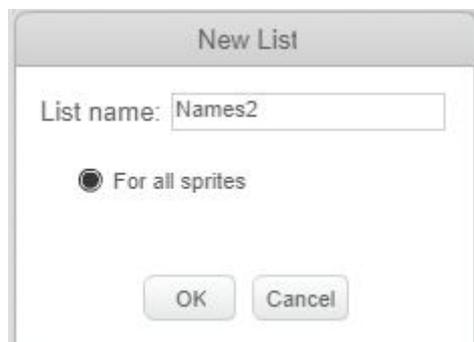
It will present us with a box to start loading up our words for our first list. To add a new word, hit the + symbol in the bottom left of the box and start typing in the test box that appears. Keep pressing + after each word to add more.



We should now have a complete list of words all contained in our list titled Names1. All that's left for us to do with our list is to hide it from view and we do this by unticking this box.



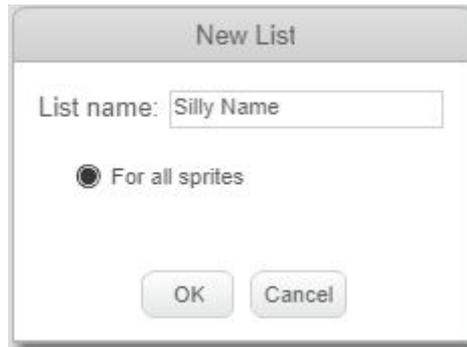
Repeat these steps for our second list of names but this time we will call our list Names2.



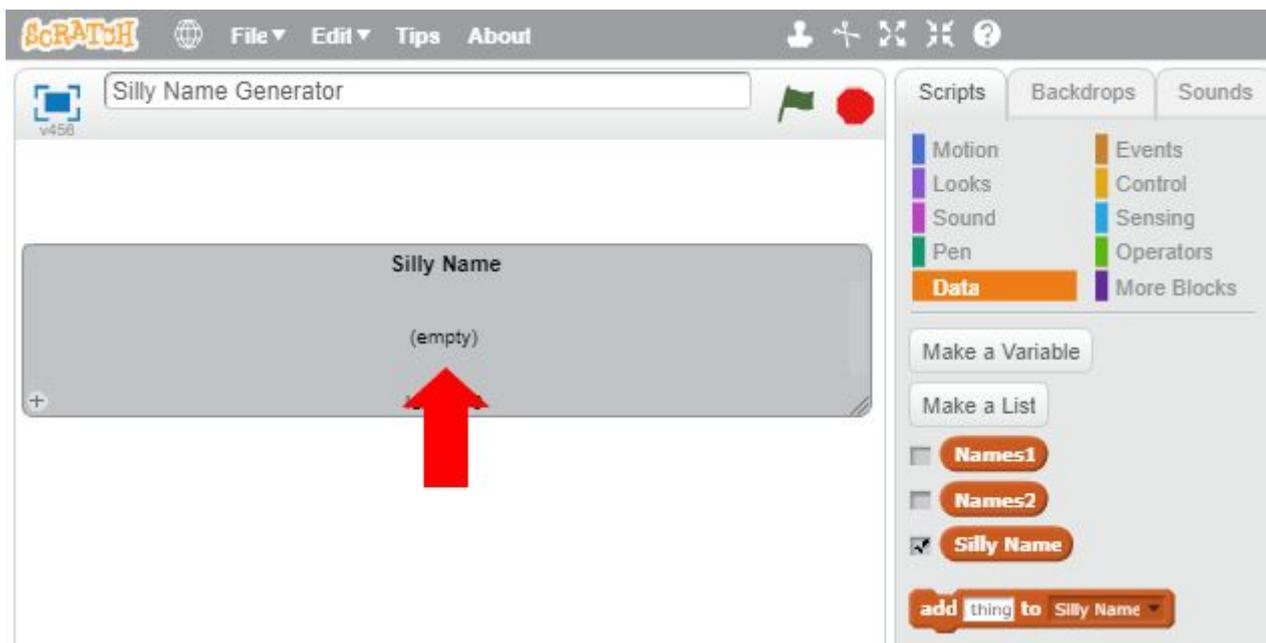
Step 2

Now that we have our two lists of words called Names1 and Names2 we need to build one final list that will display our silly name once it's been generated by the computer.

This is going to be an empty list to begin with and we'll create it in exactly the same way as before by selecting Data > Make a List. This time we will call it Silly Name.

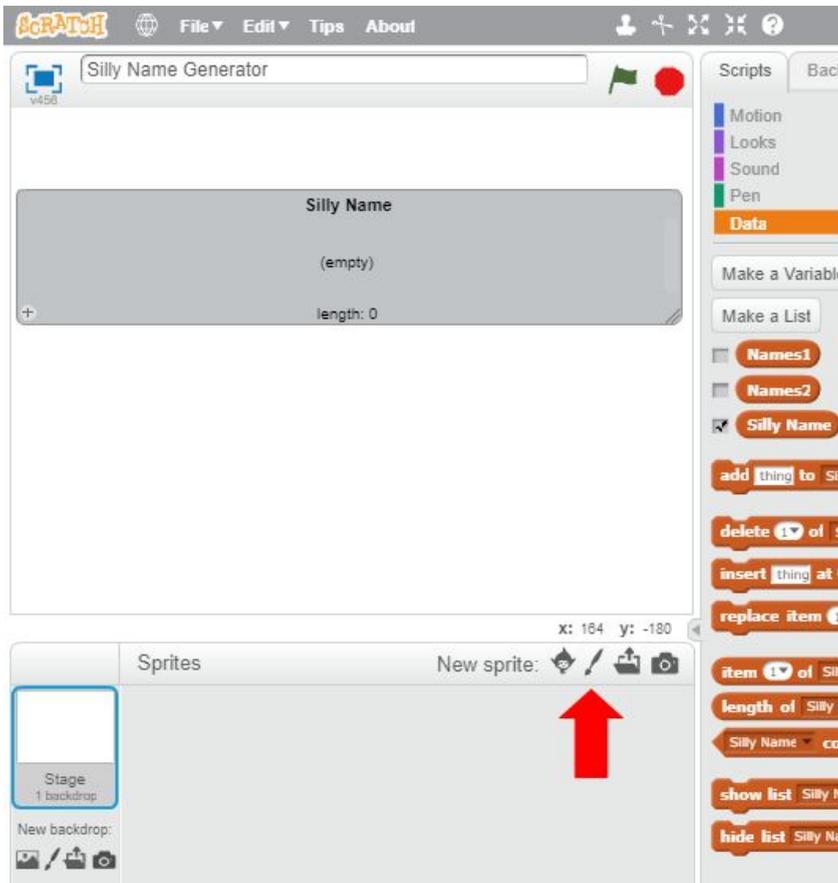


This time we won't be hiding this list from view (so don't untick the box next to Silly Name), instead we will position it on screen so it looks like this below.

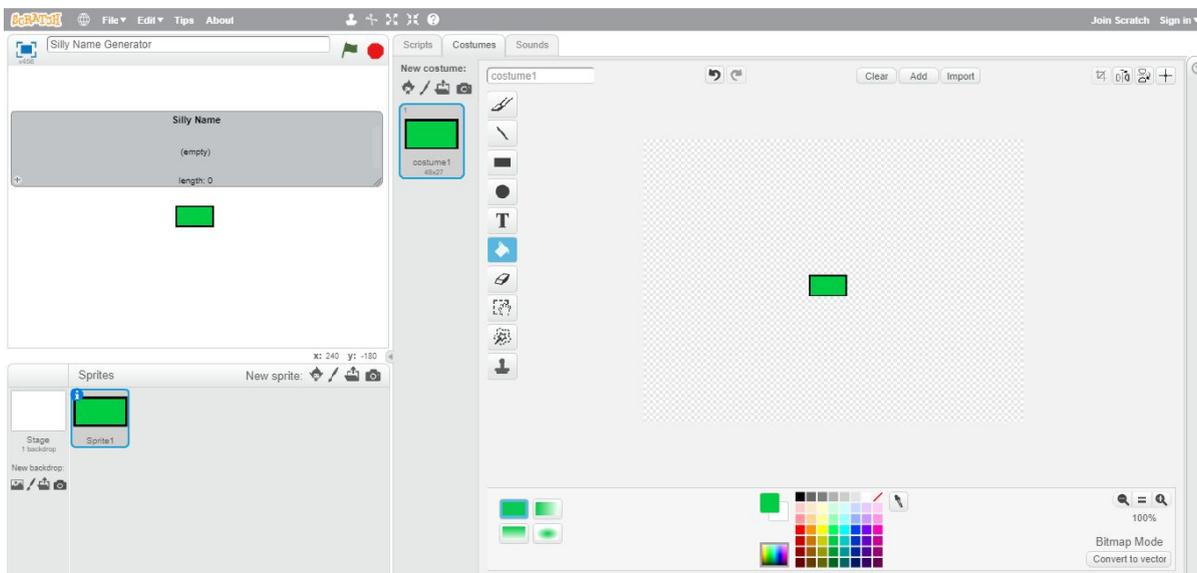


Step 3

It's button building time. We need a button to press so the computer knows when it's time to build our silly name from our two hidden lists of words. To do this click on the Paint New Sprite button towards the bottom of the screen.



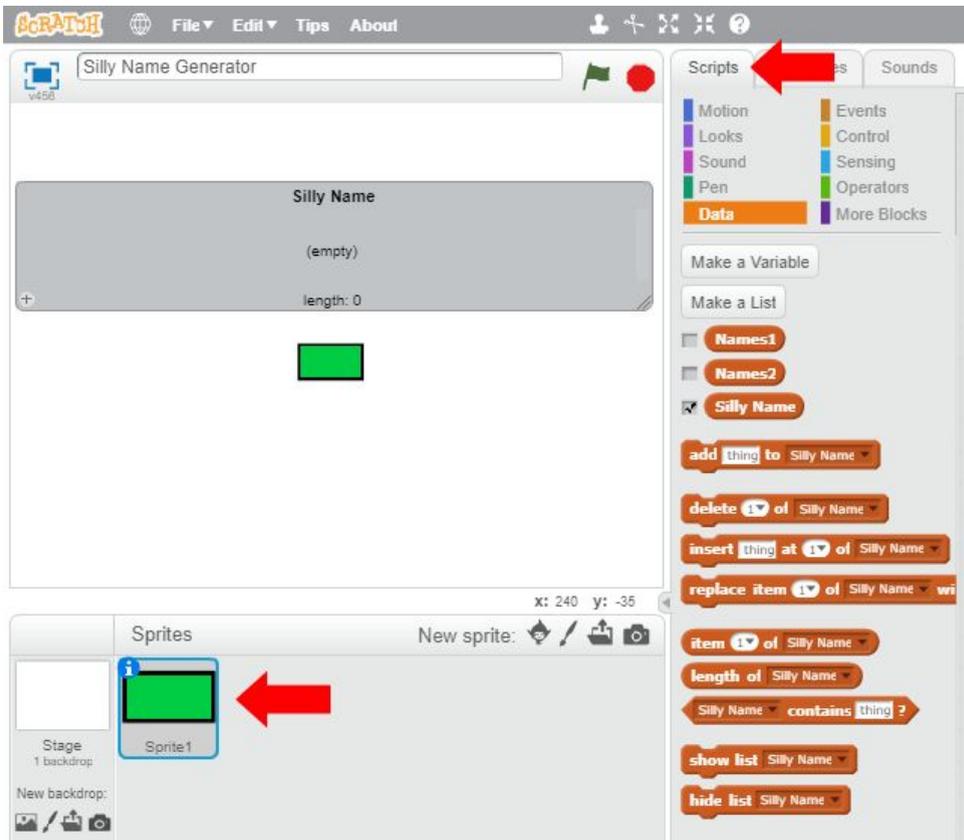
This will allow us to hand draw what we would like our button to look like in the designer window that appears on the right hand side. In here you can draw whatever you like, making it as fun or basic as possible.



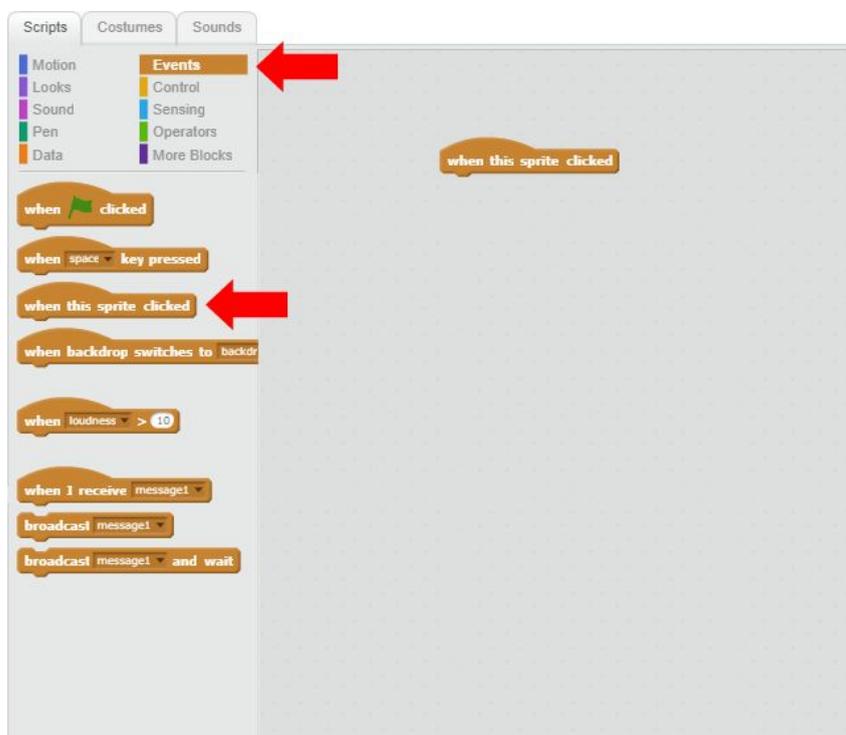
The appearance of the button can always be changed at any time, so don't worry if you're not sure at this point what you would like it to look like. For this example our button is going to be a simple square.

Step 4

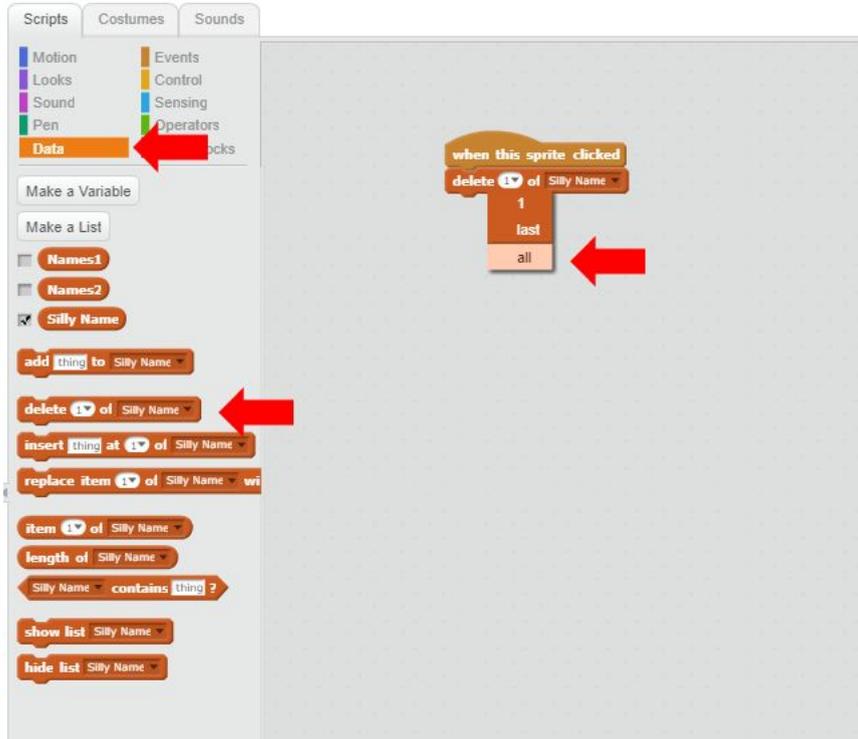
Everything is ready for us to start programming, building our instructions for the computer to follow in order to produce a silly name for us. The first thing we do is click on the Scripts tab at the top, making sure our button sprite is highlighted first.



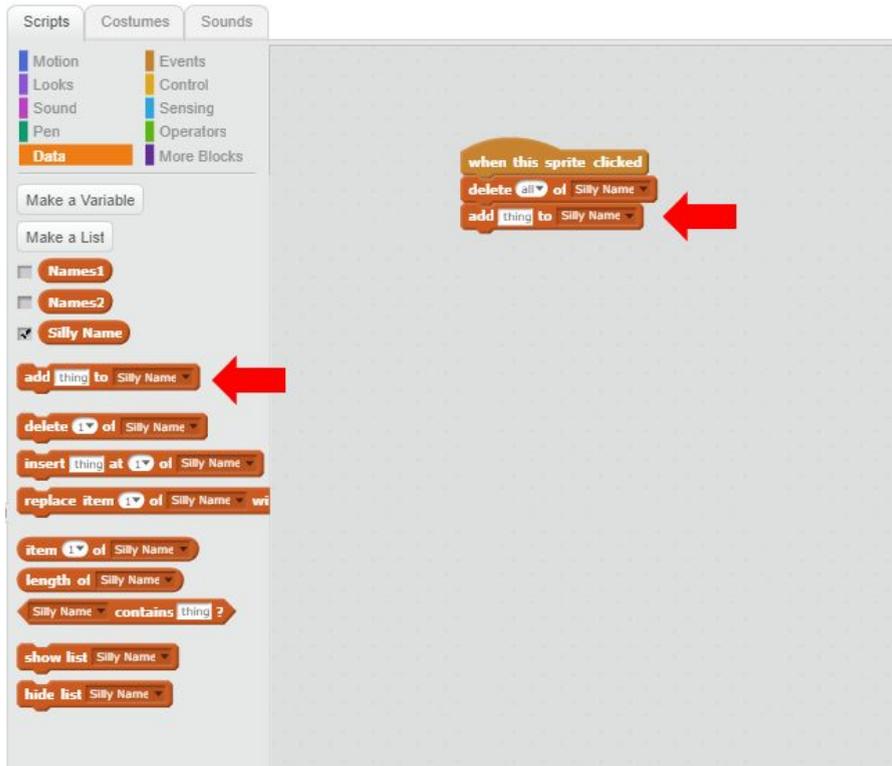
We can now start selecting our command blocks to build our program. Our first block is the WHEN SPRITE IS CLICKED block that can be found in the Events section. Drag that into the main window as shown.



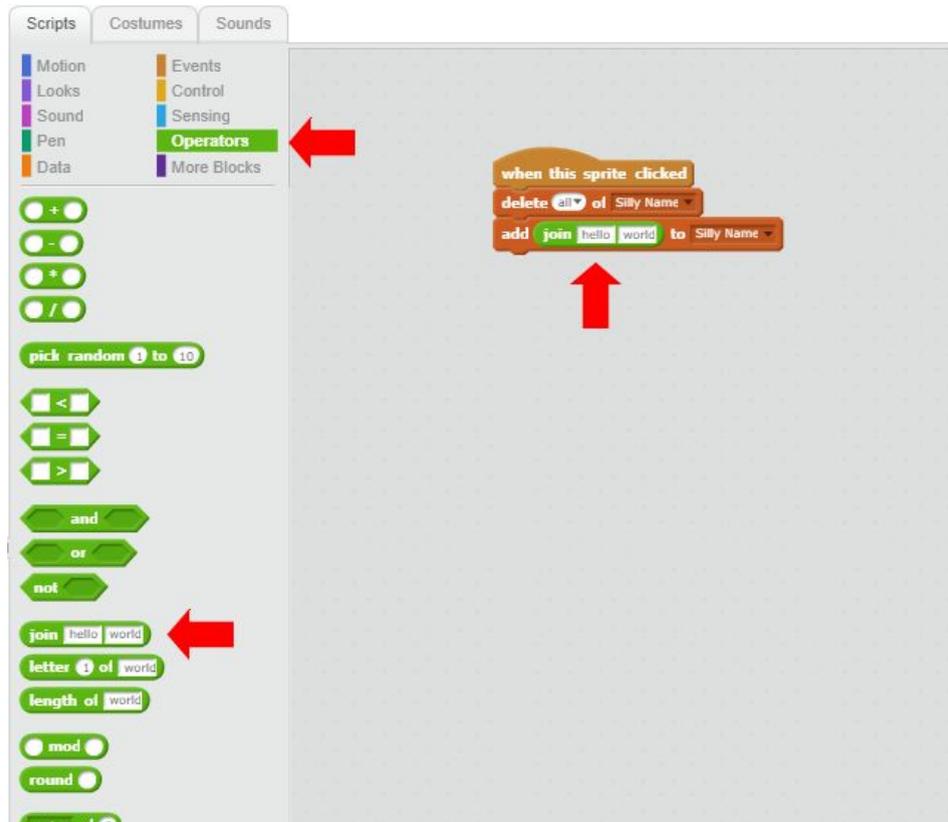
The first step when our button is pressed is to clear any previous silly names that have been generated before. We do this by heading over to the Data section, dragging the DELETE block over and selecting DELETE ALL from our Silly Name list.



Still in the Data section, we now need the ADD to List block as shown below. This will allow us to add a new silly name every time our button is pressed.



In order for the computer to combine one word from our Names1 list with another word from our Names2 list we need the JOIN block found in the Operators section. Drag the JOIN block into the ADD block from the previous stage.



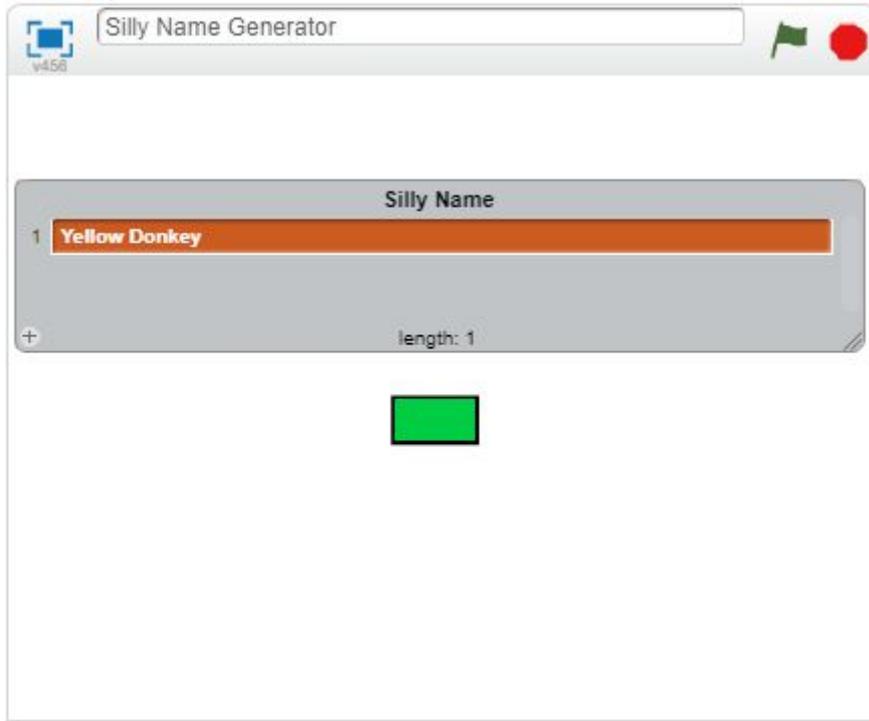
Next the computer needs to be told to select a random word from both our lists. We do this by using the ITEM block found in the Data section. Drag two of these ITEM blocks into the Join block from the previous stage and select Random from each of the dropdowns. Also make sure that the first ITEM block is selecting from Names1 and the second ITEM block is selecting from Names2 as shown below.

The image shows the Scratch interface with the Scripts area open. The sidebar on the left has the 'Data' category selected, indicated by a red arrow. The script area contains the following blocks:

- when this sprite clicked
- delete all of Silly Name
- add join item random of Names1 item random of Names2 to Silly Name
 - 1
 - last
 - random (highlighted with a red arrow)
- add thing to Silly Name
- delete 1 of Silly Name
- insert thing at 1 of Silly Name
- replace item 1 of Silly Name with
- item 1 of Silly Name (highlighted with a red arrow)
- length of Silly Name
- Silly Name contains thing?
- show list Silly Name
- hide list Silly Name

Congratulations!

You have written your first computer program. We can now click on the button to generate a silly name for ourselves. Pressing the button again and again will allow us to generate more names over and over again.



Something to think about...

How can the principles learnt in this exercise be applied to the real world? Maybe the application could be adapted to generate unique usernames for a website perhaps or maybe it could be used to generate random passwords. The possibilities are endless.