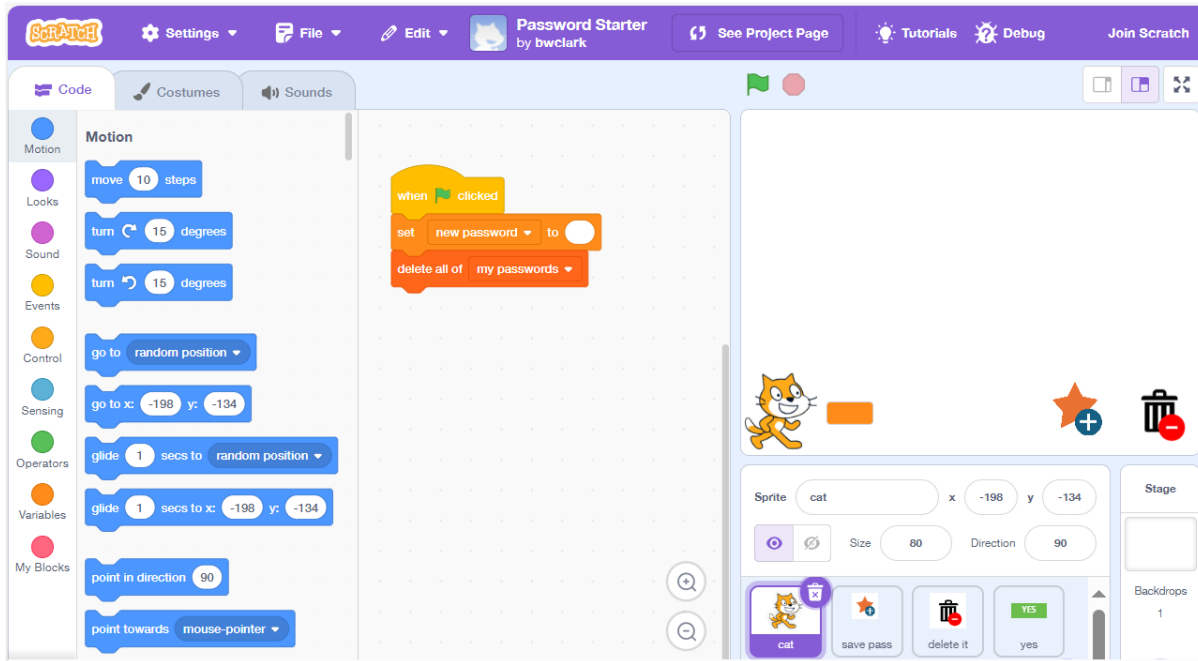


## Scratch Password Generator – Three Random Words – Cyber Scotland Week 2025

This project is based on the starter Scratch project found here [Password Starter on Scratch](#)

The project will allow you to create a 3 random word password. You will be able to save and delete password you create.

### Password Starter Project



- There are 5 sprites in this project.
- Some of these sprites have a few lines of code in them..
- This code just ensures that the starter project starts empty.
- Do not delete them.

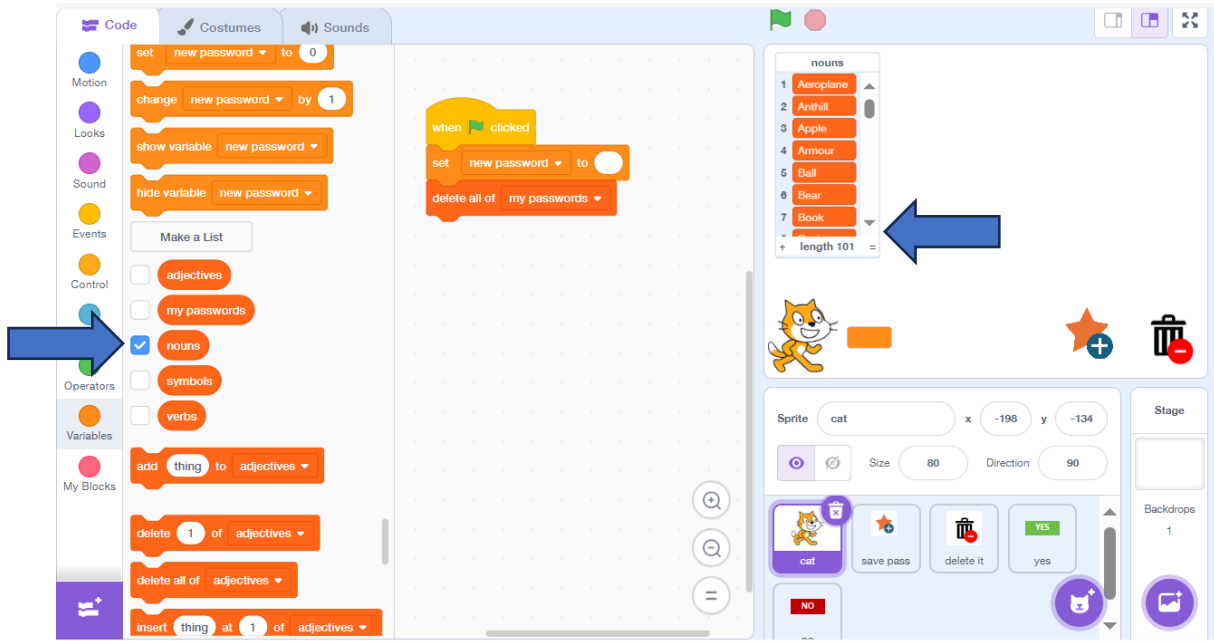
## 1. Examine the Variables

You will see that

- There is already a variable called **new password**.
- There are 5 list variables – **adjectives**, **nouns**, **symbols**, **verbs** and **my passwords**.

If you check on any of the **List** variable boxes you will see what is stored in the list.

*Eg There are 101 words in the **nouns** list*



Look at all the lists to see what is in them

This project will initially take

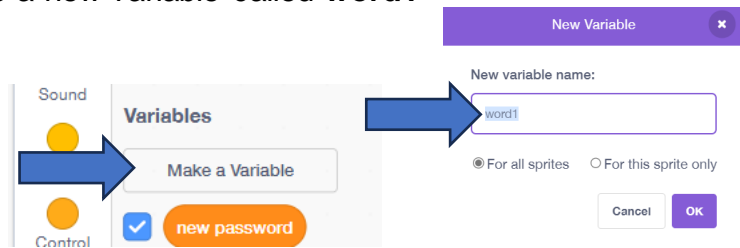
one random word from the nouns list,  
one random word from the verbs list and  
one random word from the adjectives list

then combine them together to create a 3 random word password.

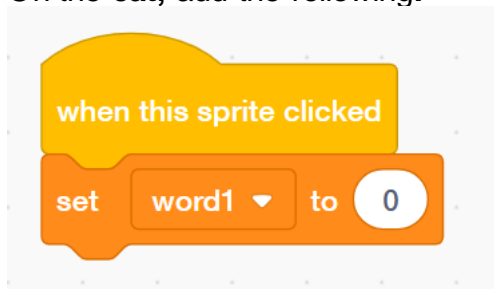
## 2. Coding the Cat

When we click the cat, we want it to pick a random word from the nouns list and store it in a **new variable** called **word1**.

Create a new variable called **word1**

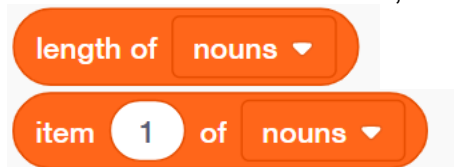


On the **cat**, add the following:



We now need to build a new command to pick a random word from nouns list.

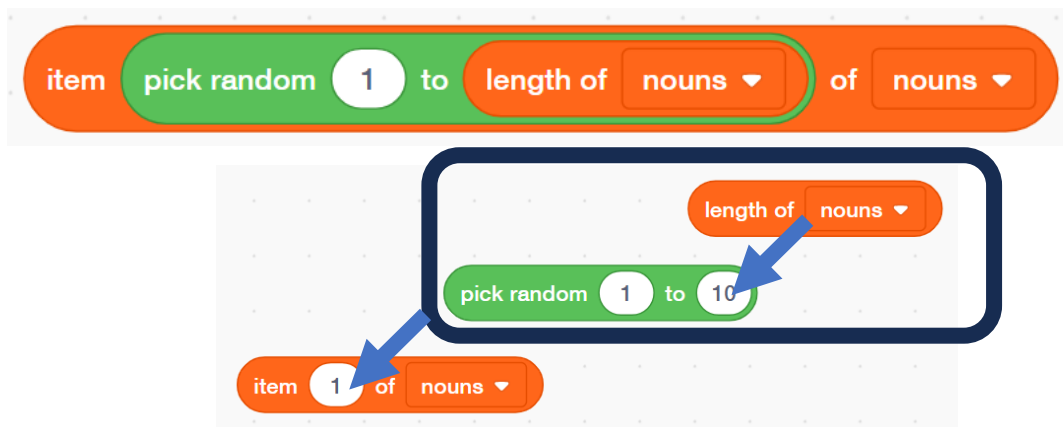
From the **Variables** section, we will need



From the **Operators** section, we will need



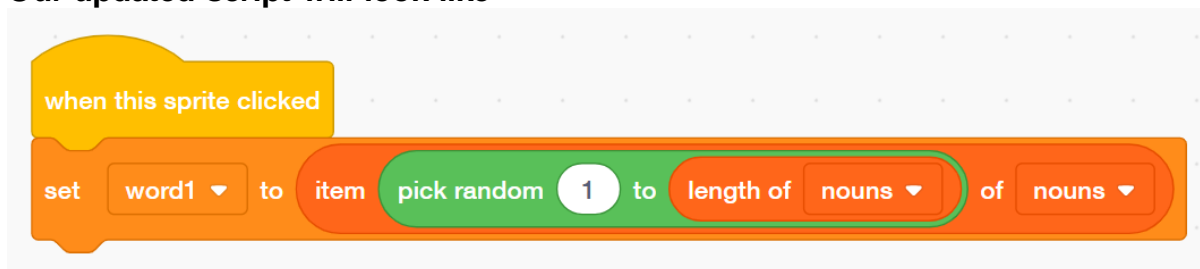
We need to stack these together like so that a word can be picked.



We can now add this to our set variable command



Our updated script will look like



## TESTING!

Click the cat sprite and a random noun should now appear in the variable on the stage

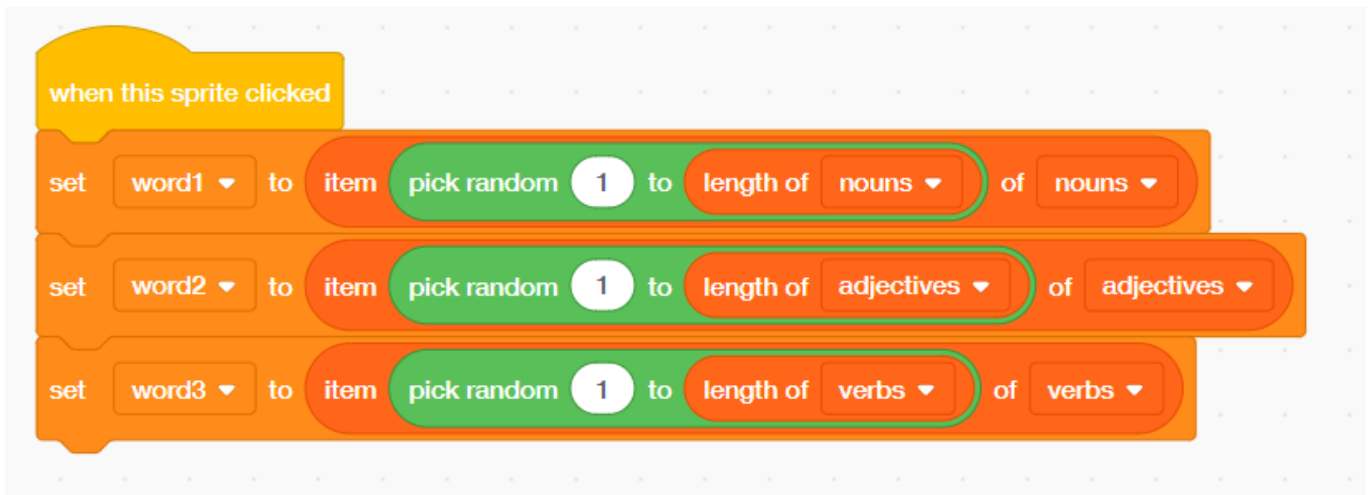


## Words 2 and 3

Create 2 new variables - Call them **word2** and **word3**

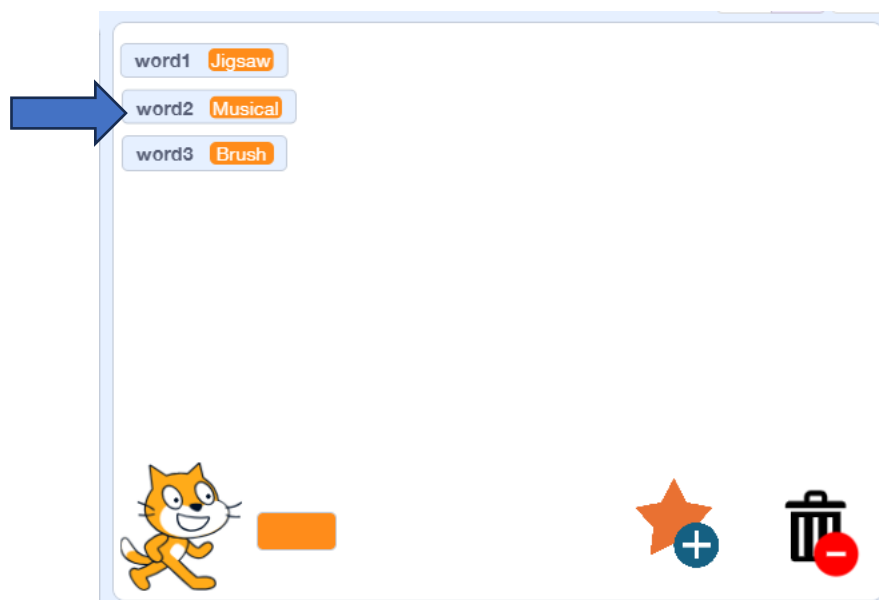
Create two more lines of code for the cat script that will pick a random word from the adjectives list and a random word from the verbs list. Use the same process as before.

Your script should now look like this:



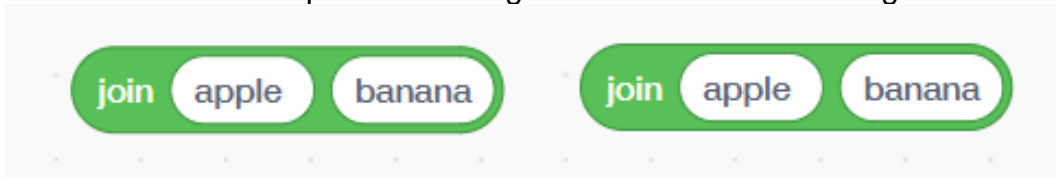
## TESTING!

Click the cat sprite and a random noun, adjective and verb should now appear in the variables on the stage



## Joining Word1, Word2 and Word3 together

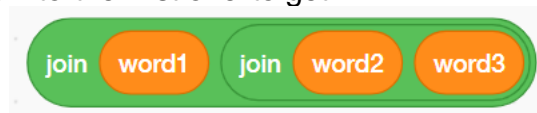
Now that we have three random words, we will join them together. To do this, we will use the JOIN command from the Operators. Bring two of these onto the stage:



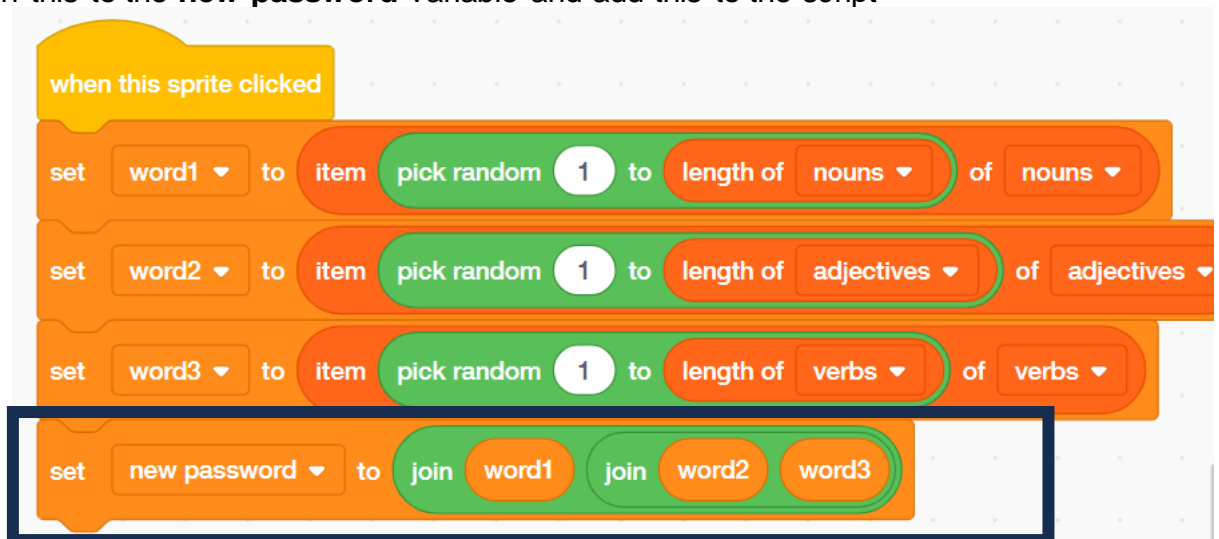
From **Variables**, pull the word1, word2 and word3 blocks into the join blocks



Put the second join statement into the first one to get

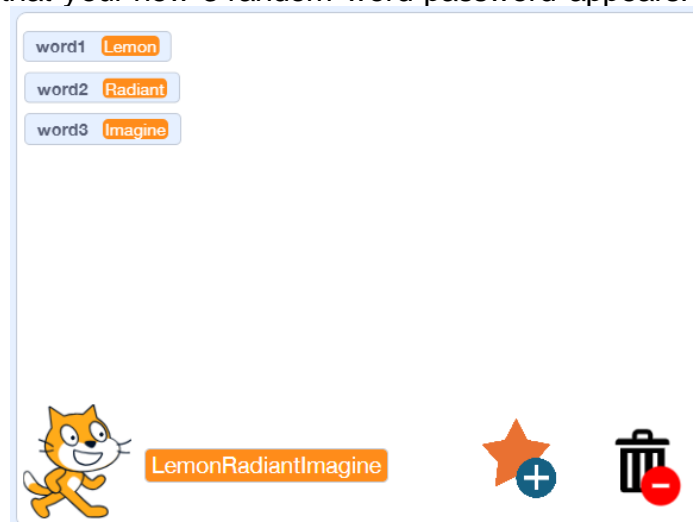


Finally, assign this to the **new password** variable and add this to the script



## TESTING

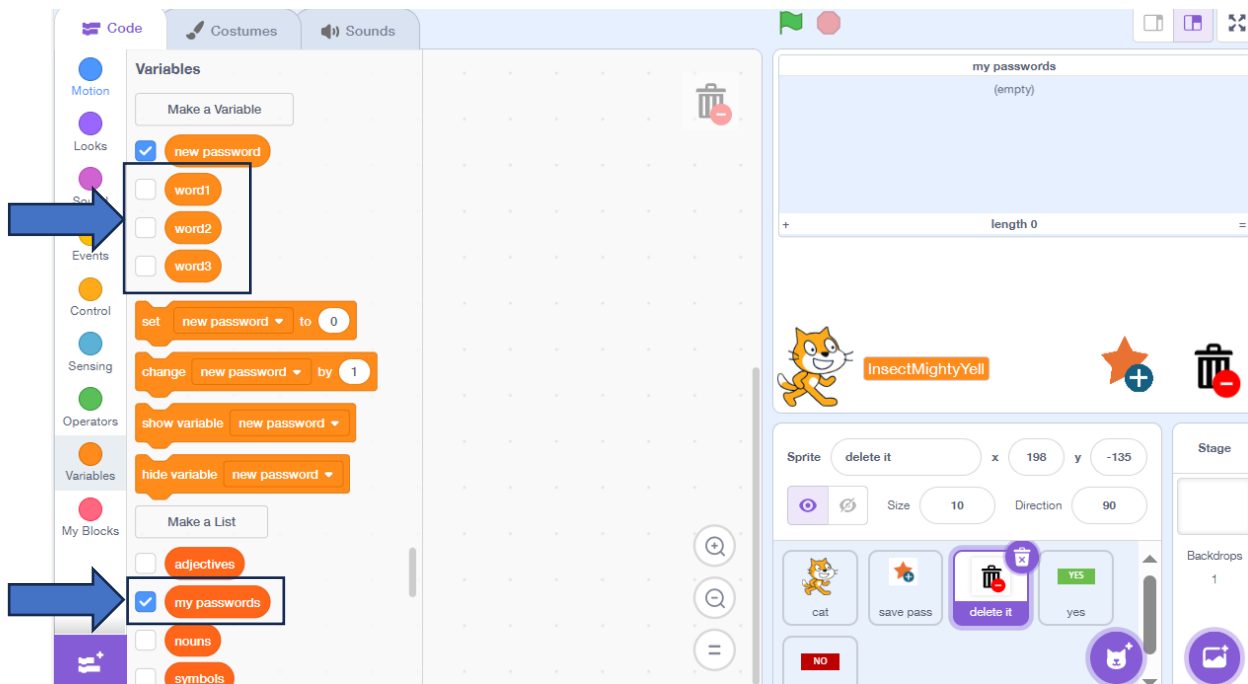
Click the cat and check that your new 3 random word password appears!



### 3. Saving Liked Passwords

Now that the passwords can be made, lets save the ones we like.

- Hide the **word1**, **word2** and **word3** variables by unchecking the boxes
- Show the **my passwords** list by checking the box in lists

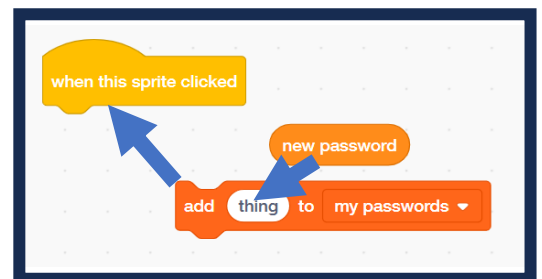
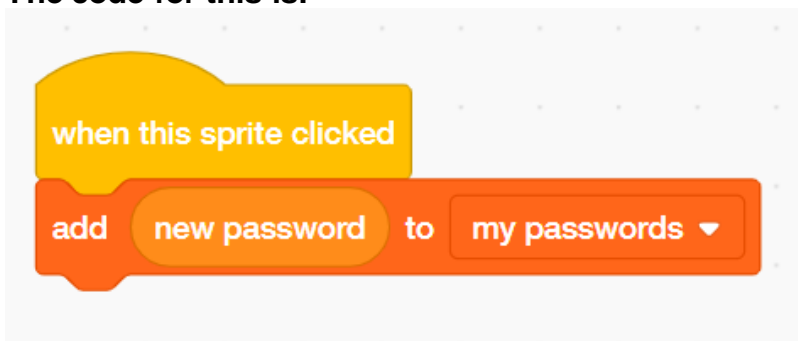


### Coding the Save Pass sprite



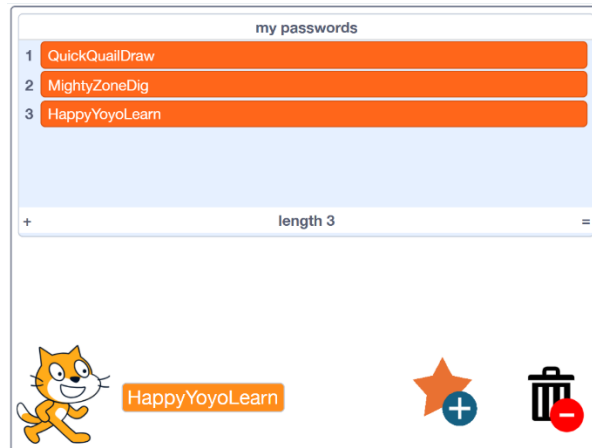
When we click on the save pass sprite, we want to add the **new password** to the **my password list**

The code for this is:



## TESTING

Click the cat and create some passwords. Press the Save Pass sprite and check that the password is added to the my passwords list



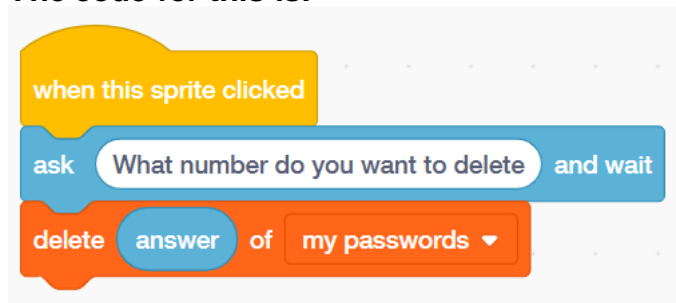
## Coding the Delete sprite



When we click on the delete sprite, we want to ask the user for the number of the password they want to delete, then delete it. You will need the

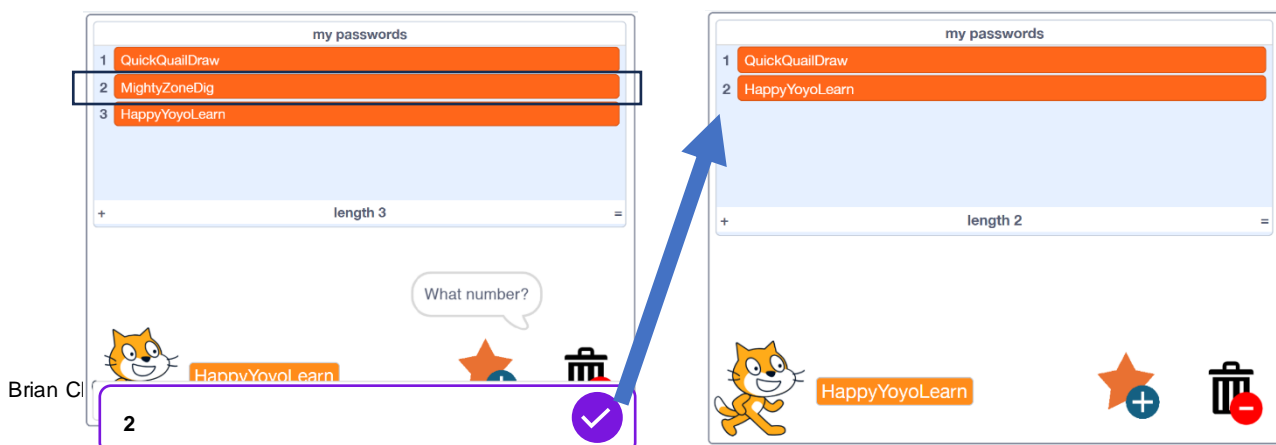
**ASK** and **ANSWER** blocks from **Sensing**  
**DELETE () of [my passwords]** block from **Variables**

The code for this is:



## TESTING

Create and save some passwords. Press the Delete sprite and enter the number of the password that you want to delete. Eg this is deleting password 2 in a list of 3.





## EXTRA CHALLENGE!

Can you make the password more complex?

1. There is a list called `symbols`. Can you add a random symbol from the list to the 3 Random Word password
2. Can you add a random number to the new password?

For example, can you generate random passwords that look like these:



Talented29Penguin\*Play



Eager42Window\$Listen

### What now?

**This program is great, but it could be improved. Can you think of any improvements to how this program works?**

- Are there any features that could be added?
- Can the interface be improved?
- Can the saving or deleting of passwords be better?
- Could the passwords that are created be better?
- Anything else?