## Computer Programming Merit Badge - Scratch Random Card Generator

Objective: Modify a random number generator to a random card generator

For this requirement you will be modifying a program already made on Scratch <u>link here</u>. Try clicking on the button and see what it does! You can create your own scratch account for free if you want to save your project. Once you made some observations click on the "See Inside" button to see the code.

You should be seeing this code:

Let's look at some of the parts going on here

when this sprile clicked

set Random Number v to pick random 1 to 100

change color v effect by 25

say join Your Number is: Random Number for 2 seconds

This is a event. It will run all the lines of code underneath it anytime its condition is met.

```
set Random Number ▼ to pick random 1 to 100
```

This sets the value of the variable "Random Number" to a random integer from 1 to 100. **Variables** store values can be accessed or altered in other places in your code.

```
say join Your Number is: Random Number for 2 seconds
```

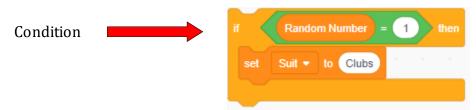
This causes the sprite to display the variable "Random Number." Using a variable we are able to retrieve the value that was generated in a previous line of code. Right now this purpose is redundant as we could have just as easily generated a random number where the variable "Random Number" is.

## Making the Random Card Generator

You will need to make the button instead display a random card. It needs to say the suit of the card (club, spade, diamond, or heart) and the value (a number 1-13, ignore unique card names just ace = 1, jack = 11, queen = 12, king = 13).

In order to generate a random suit you can use **If Statements**!

If Statements work similarly to events as if their condition is true it will run the code inside, but if the condition is false it will skip the code.



Consider how you can use Variables and If Statements to randomly select one out of four different outcomes and store that outcome.

**Try it and have fun!** This can be very confusing so please don't be afraid to ask for help. Once you complete the project please get it checked by one of the counselors so they can check off your requirement.

**Need more to do?** If you want to do more and have extra time try experimenting with other features of Scratch. Get creative and feel free to create whatever you want!