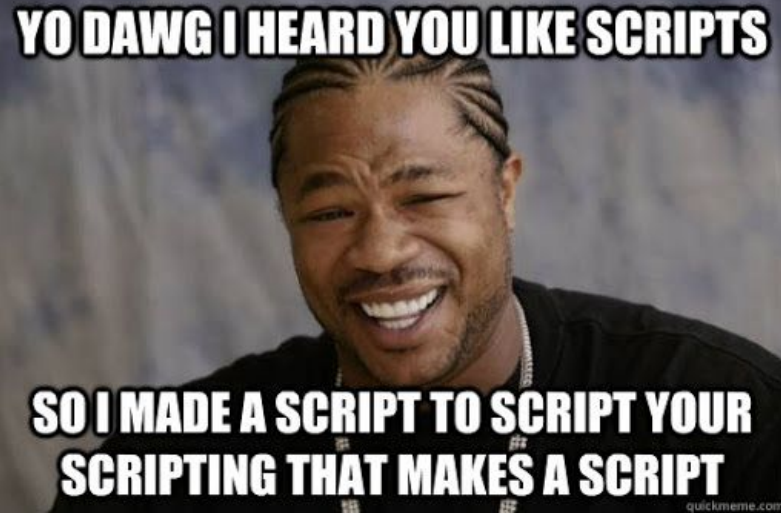# Why we script

This is the fun stuff

What is scripting?

- Scripting is another word for programming
- You write a program that does something like turning on the firewall
- 2 main ways to do it
  - Batch
    - Much more simple, but more limiting
  - Powershell
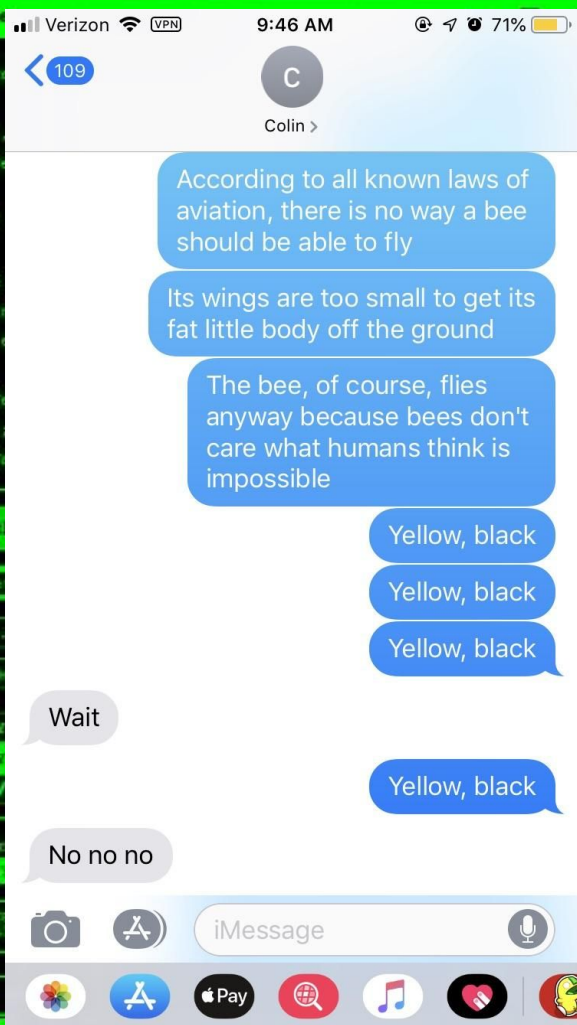   - The big kahuna, very powerful but very picky syntax-wise

YO DAWG I HEARD YOU LIKE SCRIPTS

SO I MADE A SCRIPT TO SCRIPT YOUR SCRIPTING THAT MAKES A SCRIPT

quickmeme.com

Why should you script?

- **Saves time**
  - You can script your entire GPO or basic security settings
  - Can spend more time working on the harder stuff
- **Simple**
  - Drag, drop, and run
- **You get epic score graphs**
  - Stonks but instead its points on your image

Some fun examples on the next slide...
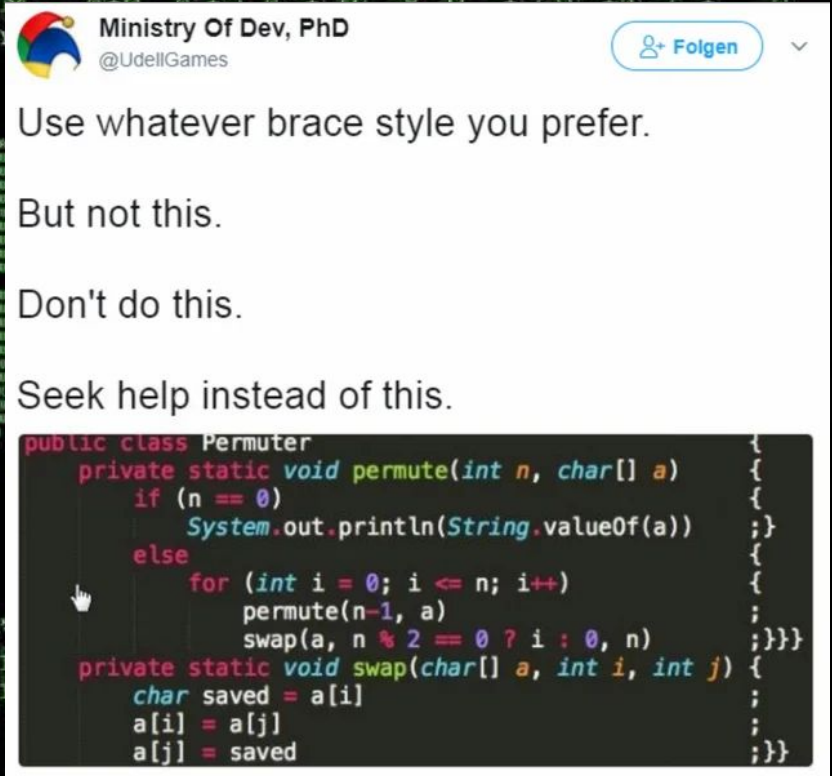
THE SCRIPT FROZE EVERYTHING

BUT IT FINALLY DID SOMETHING, WHICH IS NICE

imgflip.com

C

Colin >

According to all known laws of aviation, there is no way a bee should be able to fly

Its wings are too small to get its fat little body off the ground

The bee, of course, flies anyway because bees don't care what humans think is impossible

Yellow, black

Yellow, black

Yellow, black

Wait

Yellow, black

No no no

iMessage

Exhibit A: Someone wrote a script to send the entire Bee movie line by line to whoever they wanted to

Program Console

Compiling Code

Neural Network Tracing

Bitcoin Miner

Headquarter surveillance

Password Cracker

Nuclear Plant

Remote Detection

Secret Deals

Interpol database

Program Console

Password Cracker

Crack   Rese

Target: 23.

Database: Us

SUCCESS: Admin

Password: vHa

Legal notice:
activities is str

Start   Password Cracker   Program Console

Actually useful scripts

- Some of the things you can script
  - Firewall
  - Services
  - GPOs
  - Users
  - Prohibited files
  - Updates
  - Downloading software
  - A whole lot more

A quick Google search can get you the answer

Ministry Of Dev, PhD
@UdellGames

`Folgen`

Use whatever brace style you prefer.

But not this.

Don't do this.

Seek help instead of this.

```
public class Permuter                                              {
    private static void permute(int n, char[] a)                   {
        if (n == 0)
            System.out.println(String.valueOf(a))                 ;}
        else                                                       {
            for (int i = 0; i <= n; i++)                           {
                permute(n-1, a)                                    ;
                swap(a, n % 2 == 0 ? i : 0, n)                  ;}}}
    private static void swap(char[] a, int i, int j) {
        char saved = a[i]                                          ;
        a[i] = a[j]                                                ;
        a[j] = saved                                            ;}}
```

Terminology for Dummies who forgot everything from APCSP

```
get:
    return
},
set:function()
    d(f), e = a
})
} catch (g) {}
a._defineP
b[c] = e
}
a.migrateVers
var f = {};
a.migrateWarning ▯
```

Compiling Code

Variable:

Putting a name on something so you can call it over and over again

Neural Network Tracing

Method:

The thing that stops you from writing that same line of code over and over again

Comment:

That thing you put in your code so that you remember it after your 30 mountain dew spree.

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Program Console

Practice Time!

- Let's try making our own scripts
- Open notepad or any other text editor
- Type in "echo *replace with some message*"
- Next line type "pause"
- Tells computer that's end of script file
- Save the file as *filename*.bat (may need to change file type from .txt to all files
- Double click to run it

test.bat

```
1    :: This is a comment does not show up in actual script
2    echo how does the the human brain ignore the second "the"?
3    pause
```

File name: test.bat

Save as type: All types (*.*)

∧ Hide Folders

Result

- Something like this
- Can turn off the "C:\Users*username**rest of file path*" line by adding an "@echo off" in the beginning of the file

```
C:\Users\chief\Documents\CyberStuff>echo how does the the human brain ignore the second "the"?
how does the the human brain ignore the second "the"?

C:\Users\chief\Documents\CyberStuff>pause
Press any key to continue . . .
```

- New version

```
C:\WINDOWS\system32\cmd.exe

how does the the human brain ignore the second "the"?
Press any key to continue . . . _
```

Powershell Scripting

- A whole heck of a lot harder
- Syntax will destroy everything
- A lot more technical, but also much more powerful
- More like a true programming language
- Will need to spend a lot of time to fully understand

POWERSHELL FOR 2 HOURS

I'M MR ROBOT

stonks

Guess I cant copy paste when I'm lost anymore

Some sites to look at

- https://www.tutorialspoint.com/batch_script/index.htm

- https://www.tutorialspoint.com/powershell/powershell_scr ipting.htm#:~:text=Windows%20PowerShell%20is%20a%20comma nd,designed%20especially%20for%20system%20administration .&text=NET%20Framework%2C%20Windows%20PowerShell%20helps ,run%20on%20Windows%20Server%20environment.
  - Just google it lmao