# Hash Problem

Whilst on the Cyberman spaceship, Graham comes across a terminal. A sticky note near the terminal says, “The credentials for the next account are in file.” Graham lists the files in the terminal and sees 100 files, file0.txt through file99.txt. He looks back at the note to see which file he needs, but the sticky note was torn off just after “file”.

Help Graham find the file he needs. All but one of the files are identical; the different file is the one you want. A simple loop that takes the hash of each file is one way to do it. It does not matter which form of hash (MD5, SHA-1, etc.) you use, as we do not expect malicious files that create hash collisions. (There are other ways to solve this if you do not like hashes.)

The files are in [**hashfiles.zip**](https://learn.vccs.edu/courses/314236/files/92777927/preview).  There are 100 files, so put the zip file in its own subdirectory before you unzip.  It could make a mess.  Just sayin’.

**What is the content of the file that contains the credentials?**

Easy way to decode hints: <https://gchq.github.io/CyberChef/#recipe=From_Base64('A-Za-z0-9%2B/%3D',true,false)>

Terminal Hint 1

Qm90aCBMaW51eCAobWQ1c3VtLCBzaGEyNTZzdW0sIGV0Yy4pIGFuZCBXaW5kb3dzIChHZXQtRmlsZWhhc2gpIHdpbGwgYWxsb3cgeW91IHRvIHVzZSBhIHdpbGQgY2FyZCAoKikgaW4gcGxhY2Ugb2YgdGhlIGZpbGVuYW1lIHRvIHRha2UgdGhlIGhhc2ggb2YgZXZlcnkgZmlsZSBpbiBhIGRpcmVjdG9yeS4gIE9uY2UgeW91IGhhdmUgYWxsIHRoZSBoYXNoZXMgcHJpbnRlZCBvdXQsIGl0IGlzIGVhc3kgdG8gc2VlIHdoaWNoIGZpbGUgaXMgZGlmZmVyZW50Lg==

Python Hint 1



Python Hint 2

aW1wb3J0IGhhc2hsaWIKCndpdGggb3BlbignZmlsZTAudHh0JykgYXMgZmg6CiAgICBjb250ZW50ID0gZmgucmVhZCgpLmVuY29kZSgpCm15aGFzaCA9IGhhc2hsaWIubWQ1KGNvbnRlbnQpLmhleGRpZ2VzdCgpCnByaW50KG15aGFzaCk=

Another way Hint:  
  
RmluZCBhIHdvcmQgaW4gdGhlIGZpcnN0IGZpbGUgdGhhdCB5b3UgZ3Vlc3MgbWlnaHQgbm90IGJlIGluIHRoZSBmaWxlIHRoYXTigJlzIGRpZmZlcmVudApVc2UgZ3JlcCB0byBmaW5kIGEgZmlsZSB0aGF0IGRvZXNu4oCZdCBoYXZlIHRoZSB3b3JkIHlvdSBjaG9zZQpUaGVyZSBpcyBhIGZsYWcgaW4gZ3JlcCBmb3Igbm90IG1hdGNoClVzZSB0aGUgLXIgZmxhZyBmb3IgcmVjdXJzaXZl