

Cryptography

Riddle 1

Text to decrypt: **ozcjzmz**

Shift value of: **8**

Riddle answer: **gruber**

Key 1: **6skd8s**

**Roses are Red Violets are Blue,
Caesar would be 8 is your first clue.**

Decrypt **ozcjzmz and enter it below,
and maybe a key then might just show.**



Caesar Cipher Tool

ozcjzmz

Copy

Paste

Text Options...



8



English



Decode

Encode

Auto Solve (without key)

Instructions

Auto Solve Options

Max Results

Spacing Mode

10

Automatic



Results

Decoded message.

gruber

Riddle 2

Binary message to text:

01000111 01100101 01101110 01101110 01100101 01110010 01101111

Riddle answer: Gennero

Key 2: **cy8snd2**

**Humpty Dumpty Sat on the Wall,
Humpty Dumpty had a great Fall,**

**All the king's Horses and all the
Kings Men couldn't decode this
message for him:**

**01000111 01100101 01101110
01101110 01100101 01110010
01101111**

RapidTables

Home > Conversion > Number conversion > Binary to text translator

Binary to Text Translator

Enter binary numbers with any prefix / postfix / delimiter and press the **Convert** button
(E.g: 01000101 01111000 01100001 01101101 01110000 01101100 01100101):

The screenshot shows a web-based binary-to-text converter. At the top, there are three buttons: 'Open File' (with a file icon), 'Open Binary File' (with a folder icon), and a magnifying glass icon for search. Below these is a text input field labeled 'Paste binary numbers or drop file:' containing the binary sequence: 01000111 01100101 01101110 01101110 01100101 01110010 01101111. Underneath the input field is a dropdown menu for 'Character encoding (optional)' set to 'ASCII/UTF-8'. At the bottom of the form are three buttons: 'Convert' (with a circular arrow icon), 'Reset' (with a cross icon), and 'Swap' (with a double-headed arrow icon). The result is displayed in a light gray box below the buttons, showing the word 'Gennero'.

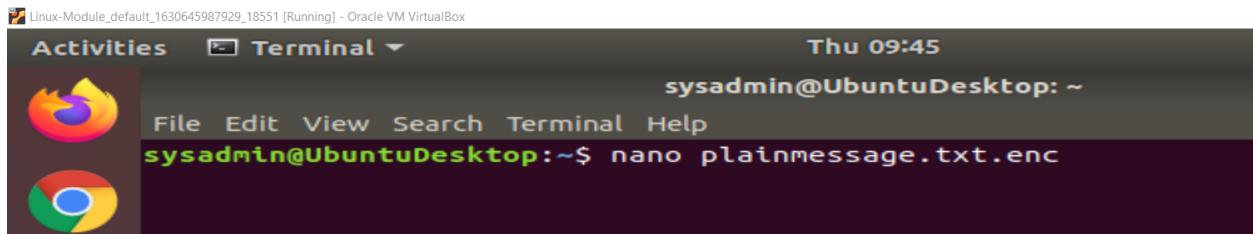
Riddle #3

Cipher text: **4qMOIvwEGXzvkMvRE2bNbg==**

Riddle answer: **takagi**

Key 3: **ud6s98n**

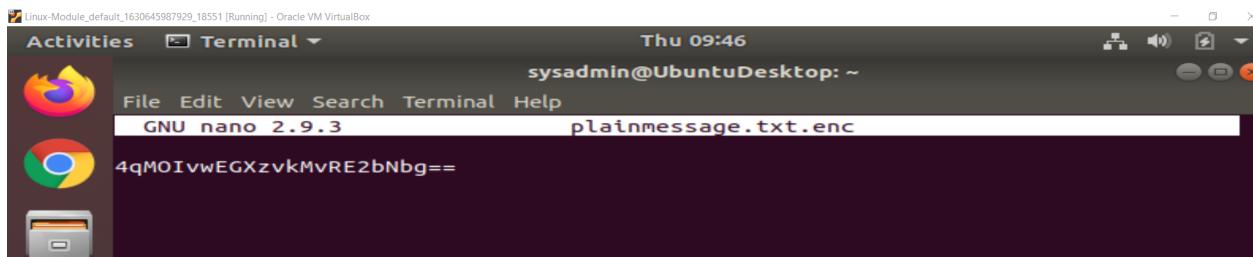
3.1: I opened a nano file named plainmessage.txt.enc



```
Linux-Module_default_1630645987929_18551 [Running] - Oracle VM VirtualBox
Activities Terminal Thu 09:45
sysadmin@UbuntuDesktop: ~
File Edit View Search Terminal Help
sysadmin@UbuntuDesktop:~$ nano plainmessage.txt.enc
```

3.2: Inside the file, I wrote the Cipher text:

4qMOIvwEGXzvkMvRE2bNbg==



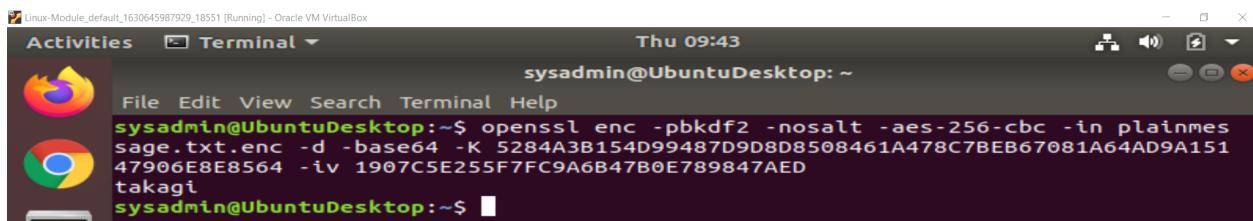
```
Linux-Module_default_1630645987929_18551 [Running] - Oracle VM VirtualBox
Activities Terminal Thu 09:46
sysadmin@UbuntuDesktop: ~
File Edit View Search Terminal Help
GNU nano 2.9.3 plainmessage.txt.enc
4qMOIvwEGXzvkMvRE2bNbg==
```

3.3: Once I have the **nano** file with the Cipher text in, I will use **openssl** to decipher the text.

Cipher text (in nano): **4qMOIvwEGXzvkMvRE2bNbg==**

key:**5284A3B154D99487D9D8D8508461A478C7BEB67081A64AD9A1514
7906E8E8564**

IV:**1907C5E255F7FC9A6B47B0E789847AED19**



```
Linux-Module_default_1630645987929_18551 [Running] - Oracle VM VirtualBox
Activities Terminal Thu 09:43
sysadmin@UbuntuDesktop: ~
File Edit View Search Terminal Help
sysadmin@UbuntuDesktop:~$ openssl enc -pbkdf2 -nosalt -aes-256-cbc -d -in plainmessage.txt.enc -out decrypted.txt -K 5284A3B154D99487D9D8D8508461A478C7BEB67081A64AD9A15147906E8E8564 -iv 1907C5E255F7FC9A6B47B0E789847AED
takagi
sysadmin@UbuntuDesktop:~$
```

Riddle #4

Multiple choice questions:

Key 4: **7gsn3nd2**

4.1:

**What would Jack use to send
an encrypted message to Jill?**

- Jack's Public Key
- Jack's Private Key
- Jill's Public Key
- Jill's Private Key

Next

Clear form

4.2:

Part 2

What would Jill use to to decrypt Jacks message? *

- Jack's Public Key
- Jack's Private Key
- Jill's Public Key
- Jill's Private Key

Back

Next

Clear form

4.3:

Part 3

Jack and Jill invited Bob, Alice, Tim and Peter along to exchange some messages. How many keys would they all need for asymmetric vs symmetric encryption? *

- 15 Asymmetric and 12 Symmetric
- 12 Asymmetric and 15 Symmetric
- 12 Asymmetric and 30 Symmetric
- 6 Asymmetric and 15 Symmetric
- 10 Asymmetric and 15 Symmetric

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4.4:

Part 4

Tim just sent an encrypted message to one of his friends, which of the following keys did he likely use to encrypt the message *

- Alice's Public Key
- Tim's Private Key
- Peter's Private Key
- Tim's Public Key
- Bob's Private Key

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4.5:

RIDDLE 4

Congrats! The Key is: 7gsn3nd2

[Submit another response](#)

Riddle #5

Hash: [3b75cdd826a16f5bba0076690f644dc7](#)

Riddle answer: argyle

Key 5: [ajy39d2](#)

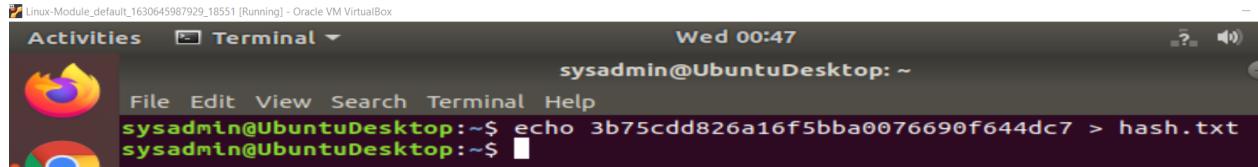
**Hey diddle diddle,
the cat and the fiddle,
The cow jumped over the moon.**

**The little dog laughed
when it found this MD5 hash,**

Hash:

[3b75cdd826a16f5bba0076690f644dc7](#)

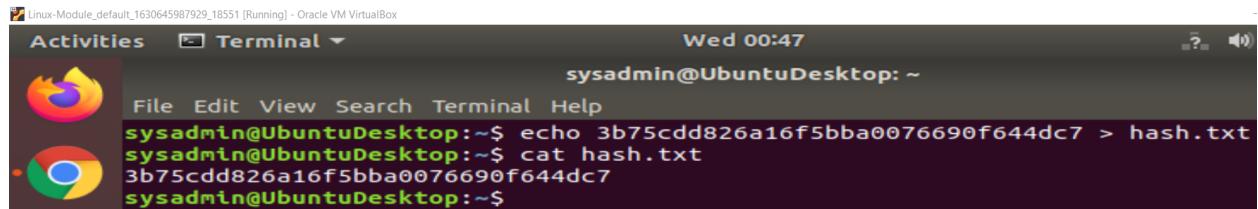
a.



A screenshot of a Linux desktop environment, specifically Ubuntu, showing a terminal window. The terminal window title is "Terminal". The terminal content shows a user named "sysadmin" at the prompt "sysadmin@UbuntuDesktop: ~". The user has run the command "echo 3b75cdd826a16f5bba0076690f644dc7 > hash.txt", which creates a file named "hash.txt" containing the MD5 hash. The desktop interface includes a dock with icons for the Dash, Home, and Dash to Dock, and a taskbar with icons for the Dash, Home, and Dash to Dock.

```
Linux-Module_default_1630645987929_18551 [Running] - Oracle VM VirtualBox
Activities Terminal ▾ Wed 00:47
sysadmin@UbuntuDesktop: ~
File Edit View Search Terminal Help
sysadmin@UbuntuDesktop:~$ echo 3b75cdd826a16f5bba0076690f644dc7 > hash.txt
sysadmin@UbuntuDesktop:~$
```

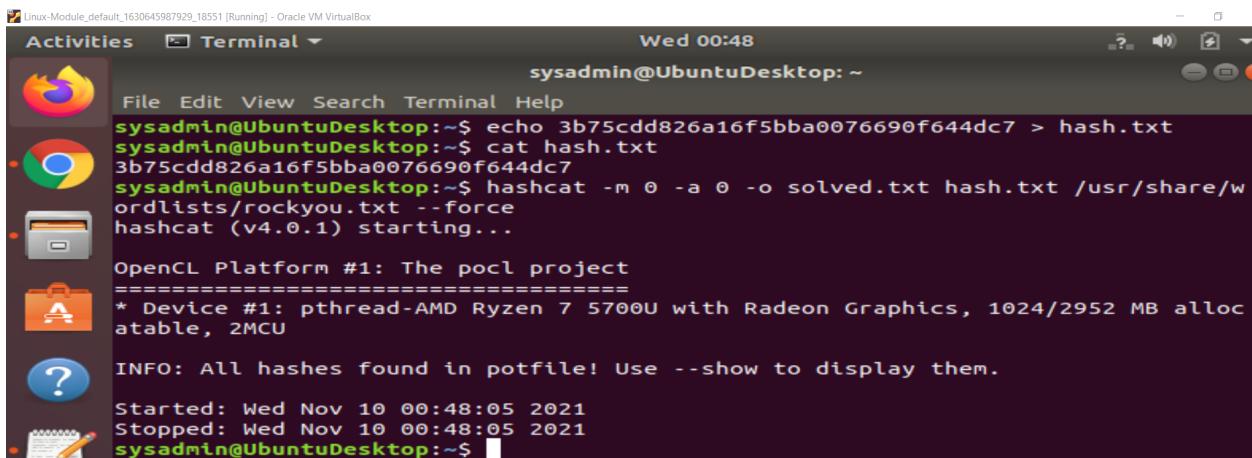
b.



A screenshot of a Linux desktop environment, specifically Ubuntu, showing a terminal window. The terminal window title is "Terminal". The terminal content shows a user named "sysadmin" at the prompt "sysadmin@UbuntuDesktop: ~". The user has run the command "echo 3b75cdd826a16f5bba0076690f644dc7 > hash.txt", which creates a file named "hash.txt" containing the MD5 hash. The user then runs the command "cat hash.txt" to view its contents, which are displayed as "3b75cdd826a16f5bba0076690f644dc7". The desktop interface includes a dock with icons for the Dash, Home, and Dash to Dock, and a taskbar with icons for the Dash, Home, and Dash to Dock.

```
Linux-Module_default_1630645987929_18551 [Running] - Oracle VM VirtualBox
Activities Terminal ▾ Wed 00:47
sysadmin@UbuntuDesktop: ~
File Edit View Search Terminal Help
sysadmin@UbuntuDesktop:~$ echo 3b75cdd826a16f5bba0076690f644dc7 > hash.txt
sysadmin@UbuntuDesktop:~$ cat hash.txt
3b75cdd826a16f5bba0076690f644dc7
sysadmin@UbuntuDesktop:~$
```

c.



Activities Terminal ▾

sysadmin@UbuntuDesktop: ~

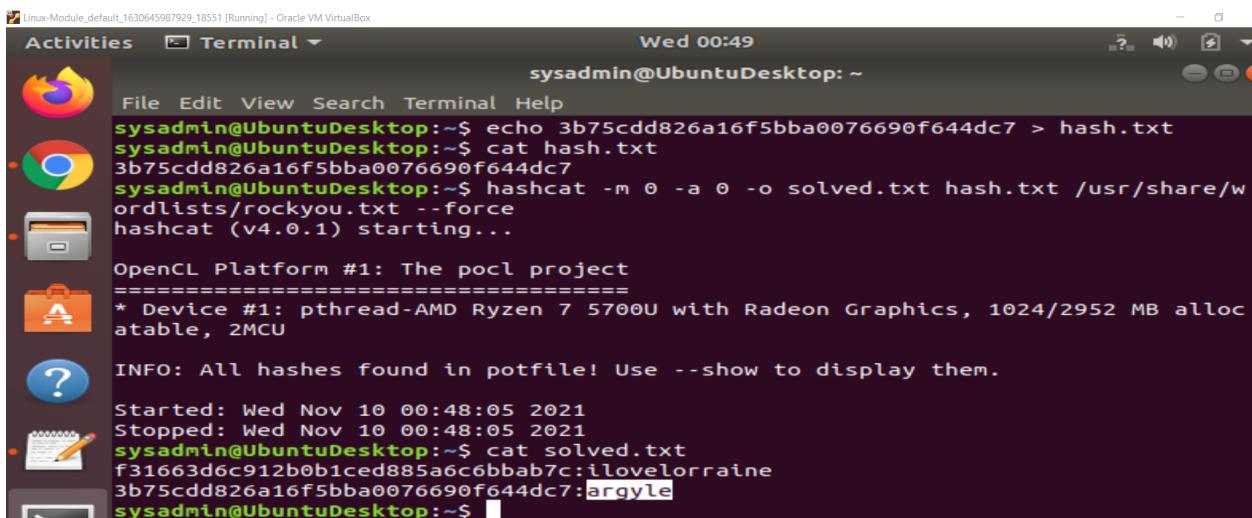
```
File Edit View Search Terminal Help
sysadmin@UbuntuDesktop:~$ echo 3b75cdd826a16f5bba0076690f644dc7 > hash.txt
sysadmin@UbuntuDesktop:~$ cat hash.txt
3b75cdd826a16f5bba0076690f644dc7
sysadmin@UbuntuDesktop:~$ hashcat -m 0 -a 0 -o solved.txt hash.txt /usr/share/w
ordlists/rockyou.txt --force
hashcat (v4.0.1) starting...

OpenCL Platform #1: The pocl project
=====
* Device #1: pthread-AMD Ryzen 7 5700U with Radeon Graphics, 1024/2952 MB alloc
atable, 2MCU

INFO: All hashes found in potfile! Use --show to display them.

Started: Wed Nov 10 00:48:05 2021
Stopped: Wed Nov 10 00:48:05 2021
sysadmin@UbuntuDesktop:~$
```

d.



Activities Terminal ▾

sysadmin@UbuntuDesktop: ~

```
File Edit View Search Terminal Help
sysadmin@UbuntuDesktop:~$ echo 3b75cdd826a16f5bba0076690f644dc7 > hash.txt
sysadmin@UbuntuDesktop:~$ cat hash.txt
3b75cdd826a16f5bba0076690f644dc7
sysadmin@UbuntuDesktop:~$ hashcat -m 0 -a 0 -o solved.txt hash.txt /usr/share/w
ordlists/rockyou.txt --force
hashcat (v4.0.1) starting...

OpenCL Platform #1: The pocl project
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atable, 2MCU

INFO: All hashes found in potfile! Use --show to display them.

Started: Wed Nov 10 00:48:05 2021
Stopped: Wed Nov 10 00:48:05 2021
sysadmin@UbuntuDesktop:~$ cat solved.txt
f31663d6c912b0b1ced885a6c6bbab7c:ilovelorraine
3b75cdd826a16f5bba0076690f644dc7:argyle
sysadmin@UbuntuDesktop:~$
```

e.

Enter your MD5 hash below and cross your fingers :

3b75cdd826a16f5bba0076690f644dc7

Quick search (free) In-depth search (1 credit) 

Decrypt

Found : argyle

(hash = 3b75cdd826a16f5bba0076690f644dc7)

Riddle #6

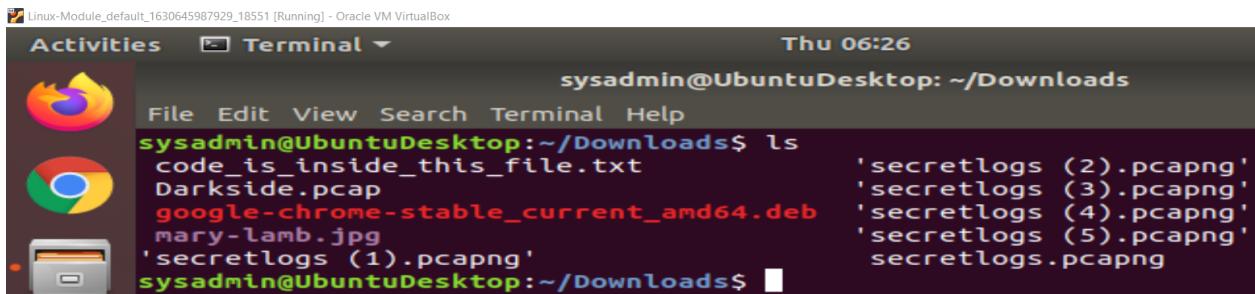
Stenography file: [mary-lamb.jpg](#)

Riddle answer: [mcclane](#)

Key 6: [7skahd6](#)



6.1: Download the file mary-lamb.jpg



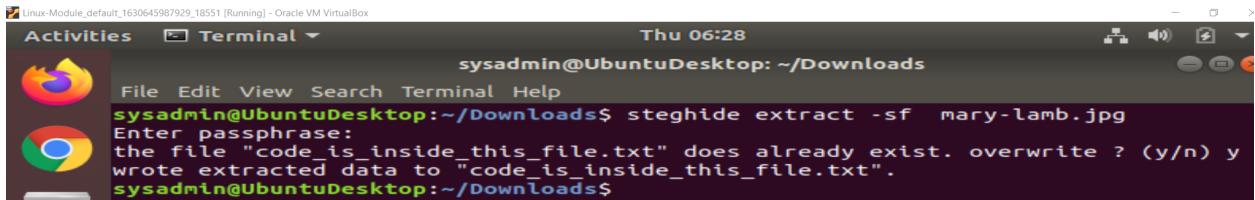
A screenshot of a Linux desktop environment. The terminal window shows the command `ls` being run in the `Downloads` directory. The output lists several files: `code_is_inside_this_file.txt`, `Darkside.pcap`, `google-chrome-stable_current_amd64.deb`, `mary-lamb.jpg`, and five files named `'secretlogs (1).pcapng'` through `'secretlogs (5).pcapng'`, followed by `secretlogs.pcapng`. The terminal window title is `sysadmin@UbuntuDesktop: ~/Downloads`.

6.2: Using steghide (steganography program) command to decrypt:

`steghide extract -sf mary-lamb.jpg`

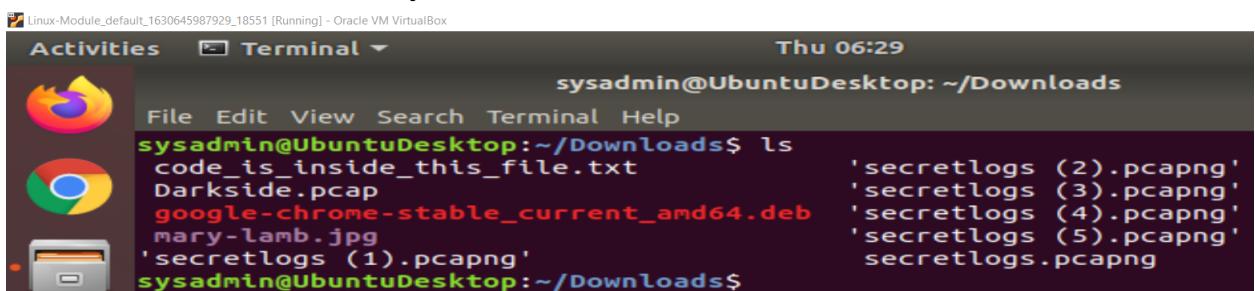
Then, using the passphrase **ABC** (as password) from the picture,
I received a file called:

`code_is_inside_this_file.txt`



A screenshot of a Linux desktop environment. The terminal window shows the command `steghide extract -sf mary-lamb.jpg` being run. The user is prompted for a passphrase, and after entering it, the message "the file 'code_is_inside_this_file.txt' does already exist. overwrite ? (y/n)" appears. The user types "y". The terminal window title is `sysadmin@UbuntuDesktop: ~/Downloads`.

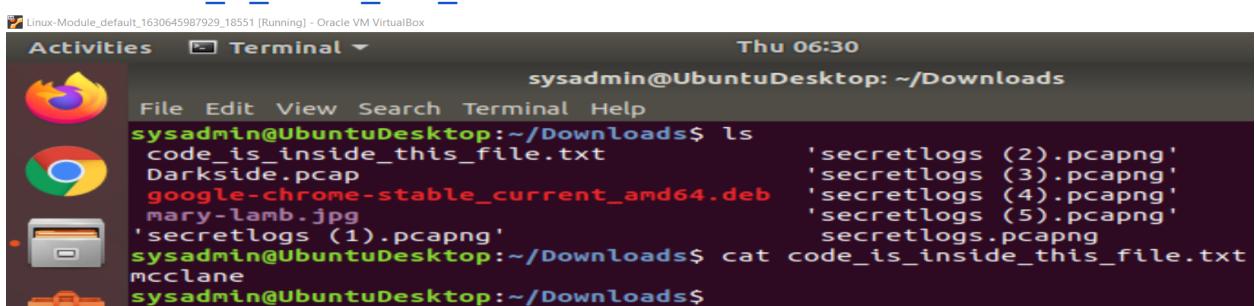
6.3: Verifying that the file `code_is_inside_this_file.txt` is under Downloads directory with ls.



A screenshot of a Linux desktop environment. The terminal window shows the command `ls` being run in the `Downloads` directory. The output lists the same set of files as before: `code_is_inside_this_file.txt`, `Darkside.pcap`, `google-chrome-stable_current_amd64.deb`, `mary-lamb.jpg`, and the five `'secretlogs (1).pcapng'` through `'secretlogs (5).pcapng'` files, plus `secretlogs.pcapng`. The terminal window title is `sysadmin@UbuntuDesktop: ~/Downloads`.

6.4: After verifying that the file exist, I used `cat` for its content:

`cat code_is_inside_this_file.txt`



A screenshot of a Linux desktop environment. The terminal window shows the command `cat code_is_inside_this_file.txt` being run. The output displays the contents of the file, which is a single line of text: `mcclane`. The terminal window title is `sysadmin@UbuntuDesktop: ~/Downloads`.

Riddle 1 Key *

6skd8s



Riddle 2 Key *

cy8snd2

Riddle 3 Key *

ud6s98n

Riddle 4 Key *

7gsn3nd2

Riddle 5 Key *

ajy39d2

Riddle 6 Key *

7skahd6

Back

Submit

Clear form

