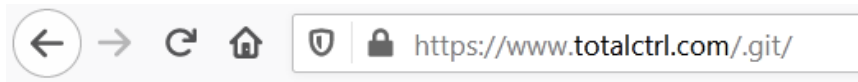


1.Many websites expose their “.git” files, please show how it could be dangerous.

First we create the dummy git folder:

```
talaye@talaye-PC MINGW32 ~  
$ git init  
Initialized empty Git repository in C:/Users/talaye/.git/
```

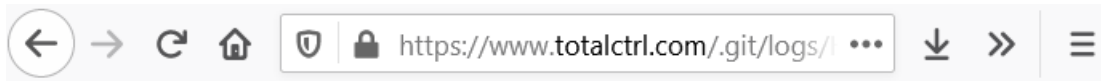


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To start retrieving information from Git repository, first we have to find starting point. Git saves all information in log file and this file is available at *.git/logs/head*

If *.git/logs/head* does not work, but *.git* returns Forbidden 403, which means it's there, try *.git/logs/HEAD* instead



```
0000000000000000000000000000000000000000000000000000000000000000
76443036bf92d663fd9dba69d020e8fd05cf6362 Ricardo Monagas
<ricardo@totalctrl.no> 1560262302 +0000 commit (initial): Initial
Commit
76443036bf92d663fd9dba69d020e8fd05cf6362
da97fc95a64b47f16b44c23474539383c55fe6e2 Ricardo Monagas
<ricardo@totalctrl.no> 1560262534 +0000 checkout: moving from Amazon
to Production
```

First two strings are object hashes (previous and current commit) - and this is exactly what we are looking for.

we should try to retrieve following url:

<https://www.totalctrl.com/.git/objects/76/443036bf92d663fd9dba69d020e8fd05cf6362>

And - here we are - file download popup

2.Imagine that we have 2^{48} text files. Explain how can we find which files are the same:

The hash functions can be used for this purpose. The hash functions give one output of the same length for each input. Just compare the hash value of the files. Matching the hash value of two files means that they are the same file. (Given that there are hash functions that are collision resistance)

3. Write a hello-world C program and explain how we can dump its binary code with radare2.

hello world in C language will look exactly like that:

```
#include <stdio.h>
int main() {
    printf("Hello, World!");
    return 0;
}
```

We compile the program using the following command:

```
gcc -w hello_world.c -o hello_word
```

Once the program is compiled we can open it with r2 by using “radare2 program” where program is the program you want to analyze.