

**Category:** Cryptography

**Challenge:** ancient cryptography

Write-up:

When we look closely at the image “**sabanci.jpg**”, we can notice something in the letter “e” that looks like hex numbers.



**“73 61 62 61 6e 63 69”** When we convert those hex numbers into text, we can get **“sabanci”**, which is our passphrase.

The trick is in the name of the challenge, which is **ancient cryptography**; one can see the reference to the **“steganography”**, an ancient greek cryptography technique that can be explained simply by saying, the method that allows hiding something to the image.

When we put the correct passphrase into one of the most famous stego tool, steghide, we will get something that looks like encrypted data.

```
(root@kali)-[~/writeup/stego]
# steghide extract -sf sabanci.jpg
Enter passphrase:
wrote extracted data to "em.txt".

(root@kali)-[~/writeup/stego]
# cat em.txt
KNKUGVCGPNZXIM3HGBPTC427GNQXG6L5
```

One can put these data into CyberChef's Magic tool to get it immediately, or you can try to figure it out by looking at the characters and their occurrences.

From_Base32('A-Z2-7=',false)	SUCTF{st3g0_1s_3asy}	Valid UTF8 Entropy: 3.88
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