HackRush CTF
Username - weirdo
Team Name - weirdo

Cryptography
Ancient

We were given this weird text.
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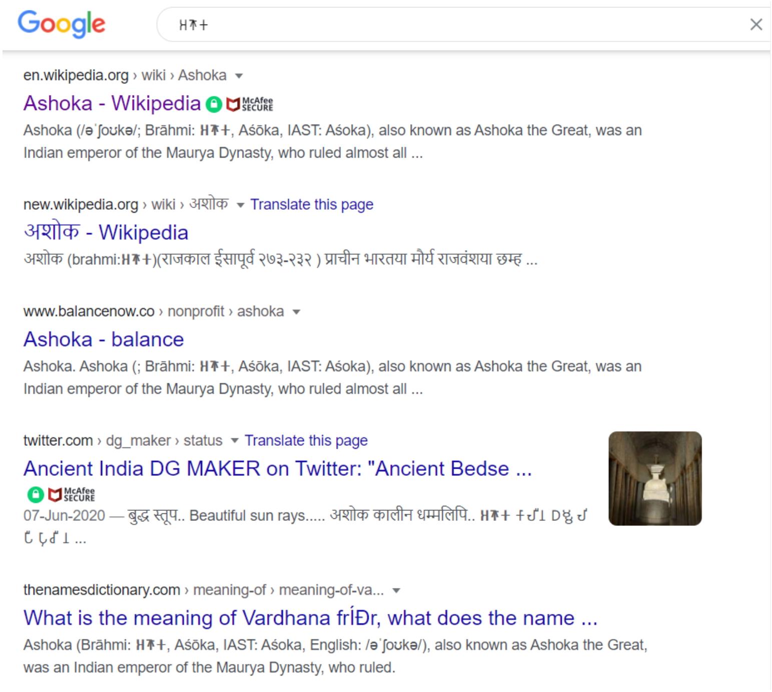
My first insights about the text were “Since we have the format of the flag submission as HackRushCTF{“”}. “□□□□” is the first thing we should care about. On simple google search of “□□□□” we get this



𑀅𑀲𑁄𑀓

en.wikipedia.org › wiki › Ashoka
Ashoka - Wikipedia
Ashoka (/əˈʃoʊkə/; Brāhmi: 𑀅𑀲𑁄𑀓, Aśōka, IAST: Aśoka), also known as Ashoka the Great, was an Indian emperor of the Maurya Dynasty, who ruled almost all ...

new.wikipedia.org › wiki › अशोक Translate this page
अशोक - Wikipedia
अशोक (brahmi:𑀅𑀲𑁄𑀓)(राजकाल ईसापूर्व २७३-२३२) प्राचीन भारतया मौर्य राजवंशया छम्ह ...

www.balancenow.co › nonprofit › ashoka
Ashoka - balance
Ashoka. Ashoka (; Brāhmi: 𑀅𑀲𑁄𑀓, Aśōka, IAST: Aśoka), also known as Ashoka the Great, was an Indian emperor of the Maurya Dynasty, who ruled almost all ...

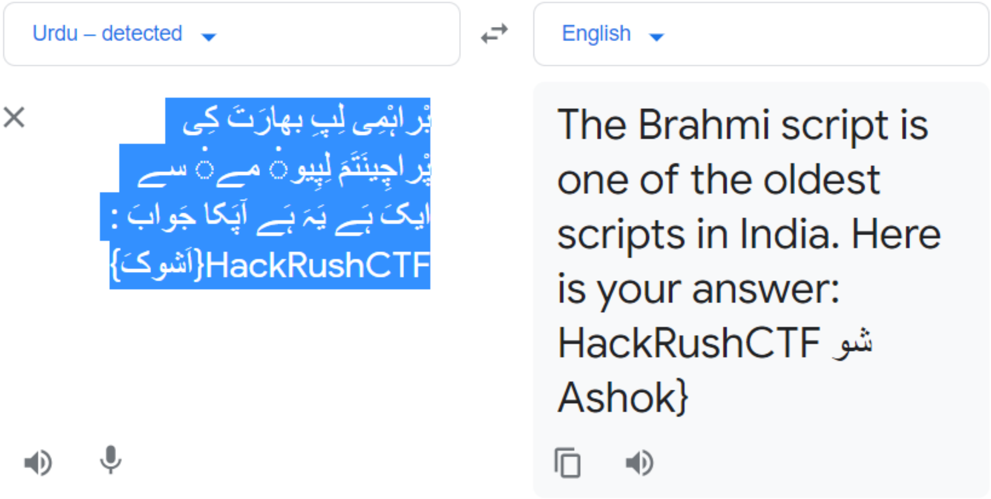
twitter.com › dg_maker › status Translate this page
Ancient India DG MAKER on Twitter: "Ancient Bedse ...
07-Jun-2020 — बुद्ध स्तूप.. Beautiful sun rays..... अशोक कालीन धम्मलिपि.. 𑀅𑀲𑁄𑀓 ...

thenamesdictionary.com › meaning-of › meaning-of-va...
What is the meaning of Vardhana frÍÐr, what does the name ...
Ashoka (Brāhmi: 𑀅𑀲𑁄𑀓, Aśōka, IAST: Aśoka, English: /əˈʃoʊkə/), also known as Ashoka the Great, was an Indian emperor of the Maurya Dynasty, who ruled.

So the text is in Brahmi script and this “□□□□” means Ashoka. After trying some change in the capitalisation of this text. I got the flag as “ashoka”. Hence the flag in submission format as HackRushCTF{ashoka}.
Even after getting the answer correct, I was wondering about what was written before HackRushCTF{□□□□}. So I tried to use google translate and ended up in finding that google

translate does not have the Brahmi script. So ok now what! I tried to search for other translators and eventually found out “Aksharamukha”.

Although it has brahmi but it lacks English. So I translated the text in Urdu using “Aksharamukha” and then converted the urdu text into English using Google translate. This is what I got :



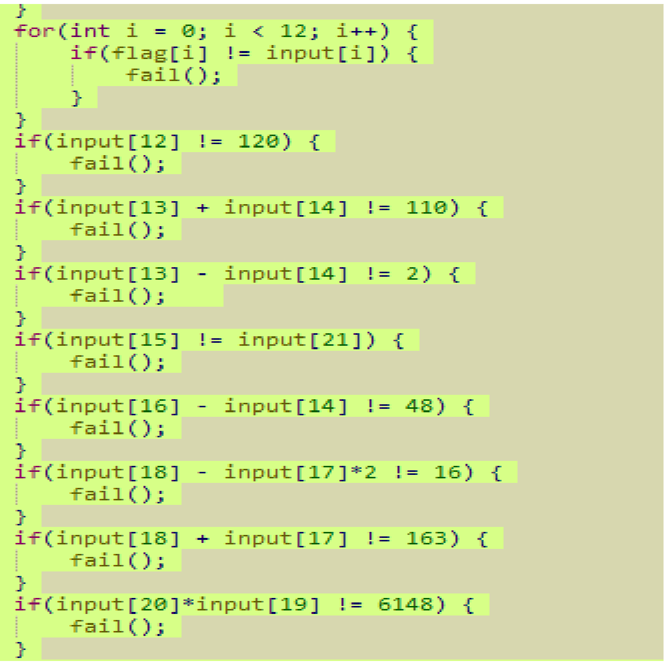
بْراہْمِی لِپِ بھارَتَ کِی
پْراچِینَتَمَ لِپِیوں مےں سے
ایکَ ہَے یَہ ہَے آپَکا جَوابَ :
HackRushCTF{اَشوکَ}

The Brahmi script is one of the oldest scripts in India. Here is your answer: HackRushCTF شو Ashok}

So it was just a quick fact that most of us know.

Binary Exploitation

simple_check



```
}
for(int i = 0; i < 12; i++) {
    if(flag[i] != input[i]) {
        fail();
    }
}
if(input[12] != 120) {
    fail();
}
if(input[13] + input[14] != 110) {
    fail();
}
if(input[13] - input[14] != 2) {
    fail();
}
if(input[15] != input[21]) {
    fail();
}
if(input[16] - input[14] != 48) {
    fail();
}
if(input[18] - input[17]*2 != 16) {
    fail();
}
if(input[18] + input[17] != 163) {
    fail();
}
if(input[20]*input[19] != 6148) {
    fail();
}
```

We were given a c file named simple_check.c I opened it to find out that it was really simple c code. Just some bunch of ascii comparisons for the correct string.
They were more or less mathematical equations. So I solved them all and converted them ascii value to get the correct answer as HackRushCTF{x86_fir5t_tim3}.
Nice and easy done. And this marks the end of the questions that I could solve in my first CTF.