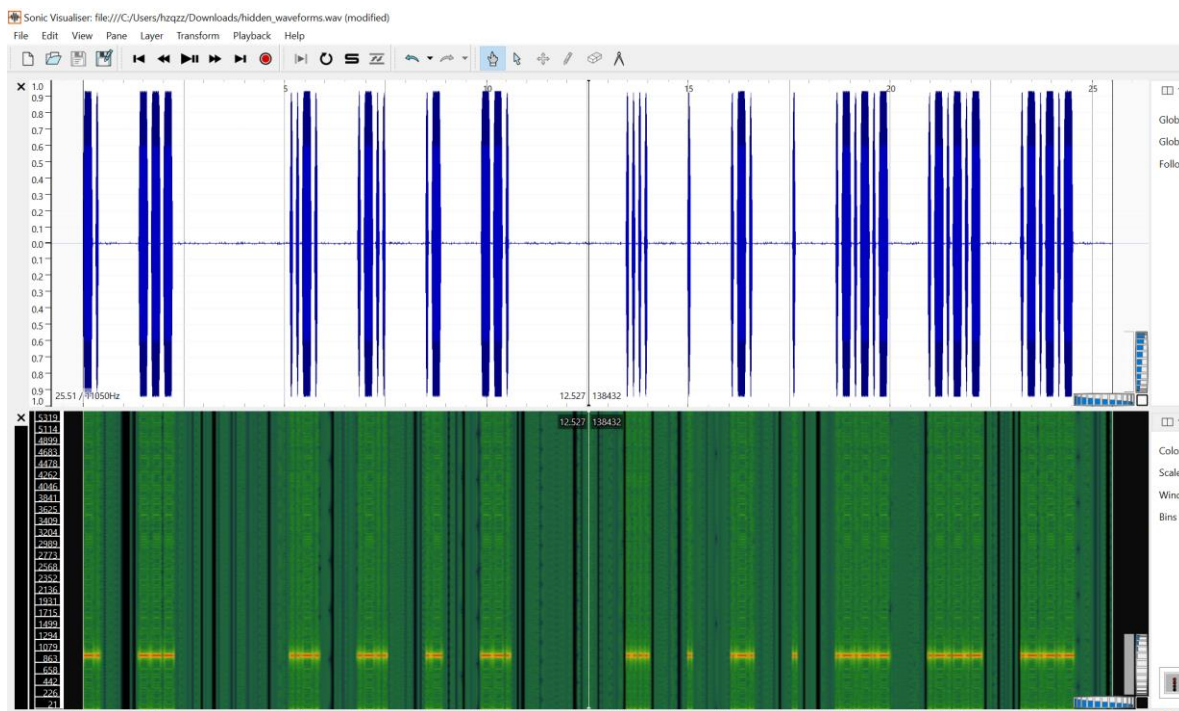
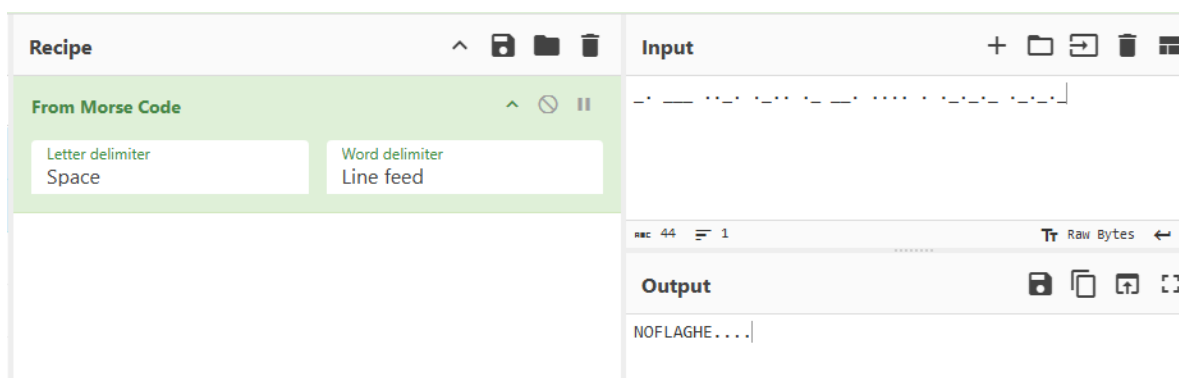


Hidden Waveform

For this challenge we got WAV file. Every WAV file I try to view spectrogram in Sonic Visualiser (Layer → add Spectrogram). There are no plaintext we can read in the spectrogram (the green one).



But we can see the short and long line(?) (don't know what's it called) So I thought it was a morse code

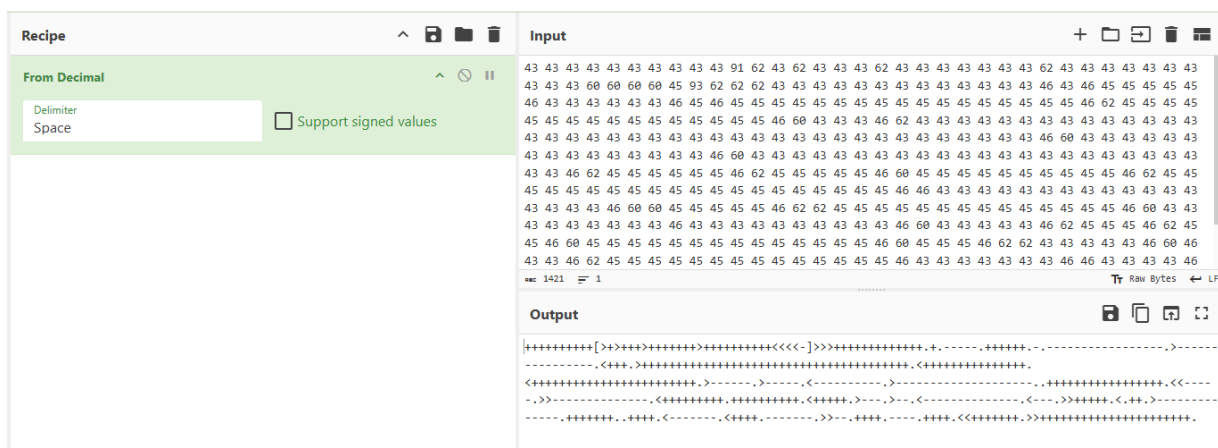


But there is no flag. Notice that it shows HE not HERE but I just skip this and not retry to decode it because there are nothing else.

This is where I use all the tools I can think of. Tools for steganography and forensic. I tried common forensic tools like exiftool, binwalk, etc but got nothing useful. So tried to use steganography tools. There are many, like steghide, zsteg, stegseek. This 3 is mainly I use. So here I tried stegseek and got a file. I check the file type, which is ASCII text and just cat the file.

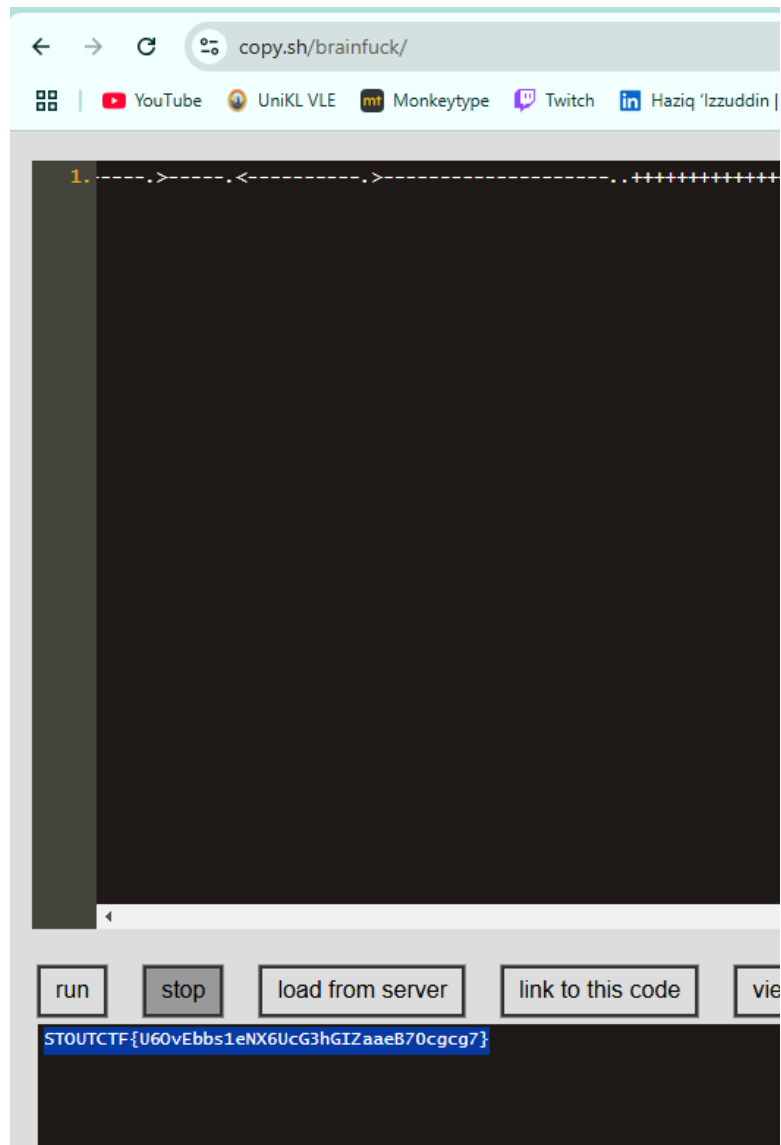
[illegible]

Here can copy all of that and put in cyberchef. If you don't know what this is, you can use Magic tool in cyberchef.



Now we got a really strange looking text. The symbol consist of +, [, >, etc. Based on experience I know this is brainfuck

I always use <https://copy.sh/brainfuck/> because it has view memory features. Some brainfuck challenge has flag in the memory, not in the output. But for this one it's in the output



STOUTCTF{U6OvEbbs1eNX6UcG3hGIzaaeB70cgcg7}