A logo with a symbol and text

Description automatically generatedRazorHack 2024

Writeup

“Homer's Reminders 1”

Homer, one of RazorPower's nuclear technicians, is known to be quite forgetful. So, he likes to leave himself reminders of important things in files. Can you find the reminder Homer left himself? The flag's format should be flag{insert reminder here}.

Author: Kate

In this challenge, participants will work with a file named homers\_reminder1.gif, which they need to download. Attempting to open the file normally will result in an error.

Here’s the error message a Mac user might see:

A screenshot of a computer error

Description automatically generated

Here’s the error message a Window’s user might see:

A screenshot of a computer

Description automatically generated

Opening the image in a hex editor reveals some interesting details. Typically, the first few hex bytes indicate the file type, providing a signature unique to each format.

A screenshot of a computer

Description automatically generated

Referring to the provided hint, we see it suggests examining GIF file signatures. According to Wikipedia, a valid GIF file begins with one of these hex signatures:

47 49 46 38 37 61

47 49 46 38 39 61

A close up of a card

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To illustrate, let’s open a working GIF file displaying a "thank you" message (thanks for reading this write-up!).

A person wearing glasses making a face

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In the hex editor, we see:

A table of numbers and letters

Description automatically generated

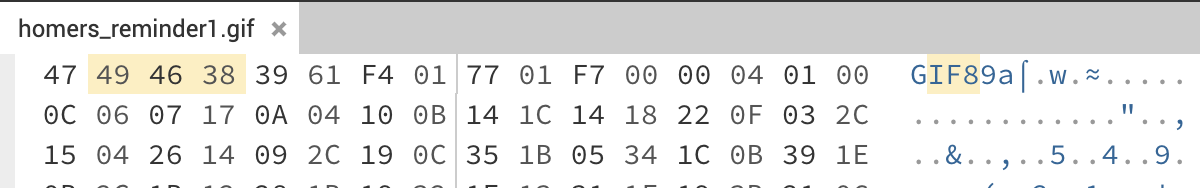
This working GIF matches the expected signature! Now, let’s look back at the original homers\_reminder1.gif file. Notice that some of its hex bytes are reversed:

A screenshot of a computer

Description automatically generated

Instead of 47 49 46 38 39 61, we see 47 94 64 39 61.

By correcting these values to match a valid GIF signature, saving the file, and reopening it, we reveal the hidden message:



Cartoon of a person in a room with a box of donuts

Description automatically generated

flag{Reminder: Do NOT leave your badge in the donut box.}