

Round 2: Image Identification

A guideline to round 2 of NWC: CTF 2025, hosted by NWC Association.

Objective

In round 2, after finding the 8 encrypted names of the images and combining the images you will find a QR Code, upon scanning the QR code it reveals a text, leading to next round.

What to look for?

Finding key for decrypting the names, since each segment is uniquely named and has to be submitted as a flag for evaluation.

Downloading the images.

Once finding all the names of encrypted images, they can be downloaded by visiting the url <https://ctf-docs-gyre.onrender.com/images/<image-name>> and then you have to encrypt the images in order to get matrix codes.

Decrypting Image Names

The source image is segmented into 8 segments, their names varies in a random order in the format e.g r1c1 = the image segment of row 1 and column 1, and it can be in format of 1,1 (row, col), r1c1 (row, col), row1col1 (row, col). The main objective of the round is to find the Algorithm used to encrypt, and the key from the previous stage to decrypt them. The key for decrypting the first flag depends on the tool used for image manipulation and where it is found. (be sure to keep track of all details ;), and further key depends on preceding ones, in the format **tool@first-four-character-of-the-previous-key**. e.g if you found that **qwerty** to be the first flag (found from log files), and **uiopk** to be the second key, the key to decrypt the 2nd key is in the format **tool@qwer**.

Notice: the key to decrypting all names has to be done in a sequential order, i.e the key to decrypt 2nd segment name, can only be done knowing the first four characters of 1st segment name.

Flags

You have to submit

- a. 8 encrypted names of the images and QR Code
- b. endpoint (text hidden in the QR code)

Points.

You'll be awarded a grand total of 25 points, if you're able to find all the flags in this round. If failing to do so, you'll be awarded an equity split of 25 points for every flag found.

Qualification to round 3:

Only the top 50% of the teams from Round-2 will qualify for the next round.

Where to submit the flags:

A google form will be distributed at the end of each round, where you can submit your flags for evaluation. Submitting irrelevant options will lead to immediate disqualification.