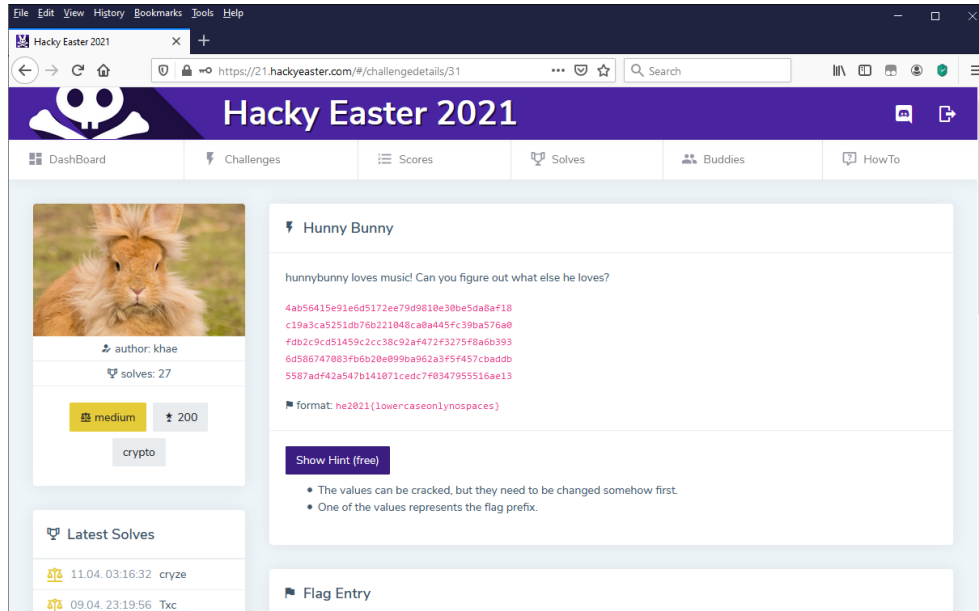# Hacky Easter 2021

Hunny Bunny

1.   Click the **Hunny Bunny** image:

2.   Open a Windows Command Prompt.

3.   Execute the following command, from the Windows Command Prompt, to calculate the SHA1 hash of the string **he2021{**:

python -c "import hashlib; print(hashlib.sha1(b'he2021{').hexdigest())"

```
4de56415b91b6a5172bb79a9810b30eb5ad8dc18
```

4.   Create a Python script, repairsha1s.py, to correct the SHA1 sum values:

```
#/usr/bin/python

encsha1s  = ["4ab56415e91e6d5172ee79d9810e30be5da8af18", "c19a3ca5251db76b221048ca0a445fc39ba576a0"]
encsha1s += ["fdb2c9cd51459c2cc38c92af472f3275f8a6b393", "6d586747083fb6b20e099ba962a3f5f457cbaddb"]
encsha1s += ["5587adf42a547b141071cedc7f0347955516ae13"]

sha1s = []

for i in range(len(encsha1s)):
  hash = ''

  for j in range(len(encsha1s[i])):
    ch = encsha1s[i][j]

    if ch in 'abcdef':
      ch = chr(ord(ch) + 3)

      if ch > 'f':
        ch = chr((ord(ch) - ord('f')) + 96)

    hash += ch

  sha1s.append(hash)

for i in range(len(sha1s)):
  print("%s" % sha1s[i])
```

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5. Execute the following command, from the Windows Command Prompt, to execute the
    repairsha1s.py Python script:

    python repairsha1s.py

    ```
    4de56415b91b6a5172bb79a9810b30eb5ad8dc18
    f19d3fd5251ae76e221048fd0d445cf39ed576d0
    cae2f9fa51459f2ff38f92dc472c3275c8d6e393
    6a586747083ce6e20b099ed962d3c5c457fedaae
    5587dac42d547e141071fbaf7c0347955516db13
    ```

6. Execute the following commands, from the Windows Command Prompt, to create a
    hashes.txt file:

    python repairsha1s.py > hashes
    tail -n4 hashes > hashes.txt

7. Execute the following commands, from the Windows Command Prompt, to attempt to
    recover the SHA1 hash values, with are **two** characters long:

    hashcat.exe -a 3 -m 100 hashes.txt -1 ?l?s ?1?1 -w 3 -O --quiet

    ```
    5587dac42d547e141071fbaf7c0347955516db13:!}
    ```

8. Execute the following commands, from the Windows Command Prompt, to attempt to
    recover the SHA1 hash values, using the rockyou.txt file:

    hashcat.exe -m 100 hashes.txt rockyou.txt --quiet

    ```
    f19d3fd5251ae76e221048fd0d445cf39ed576d0:hunnybunny
    cae2f9fa51459f2ff38f92dc472c3275c8d6e393:ilovemum
    6a586747083ce6e20b099ed962d3c5c457fedaae:somuch
    ```

9. Close the Windows Command Prompt.

Flag: **he2021{hunnybunnyilovemumsomuch!}**