Author: Jayesh Jaiswal; Atharva Gawas.

Title: I am an Investigator

Git-Hub Links:

https://github.com/Jayesh-2003 https://github.com/ATHARVA-GAWAS

Category: OSINT

Description: Our CrimeBranch is investigating the following crime. We cannot afford to visit the crime scene IRL, please help us.

Flag: VishwaCTF{n0t_4_murd3r_just_4_m1sund3rst4nd1ng}

Writeup

1. Download the image given, we can notice it is corrrupted, so we need to repair it.

```
42 48 41 49 0D 0A 1A 0A 00 00 00 0D 49 48 44 52
                                                               BHAI IHDR
00000000
00000010
           00 00 18 2A 00 00 02 66 08 06 00 00 00 3E F3 37
           EB 00 00 08 BC 7A 54 58 74 52 61 77 20 70 72 6F
00000020
00000030
           66 69 6C 65 20 74 79 70 65 20 65 78 69 66 00 00
                                                              00000040
           78 DA AD 97 69 B2 1B BB 0D 85 FF 73 15 59 02 41
           70 5C 0E C7 AA EC 20 CB CF 07 B6 24 FB 5E FB C5
00000050
00000060
           2F 95 48 A5 EE 16 9B 04 01 9C 83 81 6E FF EB 9F
00000070
           C7 FD 83 4F 88 25 B8 98 4A CD 2D 67 CF 27 B6 D8
                                                               -² â0ê%<del>|</del> ÿJ=-g<sup>⊥</sup> '
                                                               00000080
           42 E7 A1 FA E7 33 EE 55 7C BC D7 FB 09 5D EA 6B
                                                               [∰CDxf0ñ∎]y┯⊤K
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00000090
           F4 CB B8 43 44 78 66 30 A4 DC F5 79 D1 C2 4B D8
000000A0
           66 3C 7C F6 FB F6 DA 44 DF F3 DF 82 DF 0F D2 79
                                                               J?^[Ŏ±u|┛.å.]ၗ
           4A 3F 5E F4 F7 82 F1 75 7C BC 04 86 FA 5D D0 4B
000000B0
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000000C0
          03 95 67 67 BF 5E 0B 5E 82 34 BC 34 8A CF FF 99
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00000000
           9F 7B 6E B5 7C 31 6D F5 D7 CE EF A1 FA E3 17 B5
000000E0
           84 9C B2 94 C8 35 06 1F 43 C1 E2 A4 F8 72 99 92
          67 86 66 4B D2 30 8D BE 0D 5C A7 97 67 6A 40 9F
00000F0
00000100
           B0 55 D4 73 55 0D 8F 86 6A 3F D5 CE DD AE 41
                                                               ≤—iμ.[".]:[.c≡
          F3 C4 69 E6 0F 5B DF 17 F5 3A DD 03 63 F0 05 15
00000110
00000120
          CB 23 F8 BC 51 C4 91 3F FB E5 73 F7 2F 8D BE 7F
00000130
           FE 64 92 47 FF B3 6D E2 6F 50 FB CE 97 CF D3 37
00000140
          BE 48 7B C3 F6 95 2E AE 86 D7 14 FD 0A A7 CF 9F
00000150
           FB 6F C7 25 FD 05 FC 17 E4 9F 76 AE F5 F5 14 BE
          8E E3 A6 FA C5 OF 2F 84 9D 5D CE 59 F5 5C A3 B1
00000160
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f-à_ɪਚ°ɪ¬4- ┏w?!
00000170
           A2 C7 8C 2F F2 CB A8 B7 89 F7 89 79 C3 3C 78 97
00000180
          66 BE 85 5F E2 B9 F8 E2 B8 34 BE D5 77 3F 21 DD
00000190
          F2 13 F2 0E 9E 9B 04 70 3F 12 65 49 97 23 FB DE
                                                               ≥ ≥ ₱¢ p? eIù#√▮
                                                               °LTîaç<sub>T</sub>=ä.[ÄU.@-
Lá.H<sup>L</sup>WN(<sub>Γ</sub>tià!≤≥'
000001A0
           A7 4C 54 8C 61 87 C2 3D 84 19 F4 8E 55 07 40 2D
000001B0
           4C A0 17 48 C0 57 4E 28 DA 74 69 85 21 F3 F2 27
000001C0
          6A F8 E8 22 77 DB 76 B7 9B 84 EF F2 4B 98 19 C4
                                                               j°⊕"w<mark>w</mark>v<sub>¶</sub>¢ä∩≥Kÿ.
000001D0
           21 4D 58 F2 3F 7F DD 9F 26 9C 33 CD 45 62 BE 04
000001E0
           7A 79 F0 0D C6 F2 20 E6 45 B5 EB 39 6E 82 88 9C
          97 53 D3 75 F0 FB FB FD 63 B8 2A 08 A6 EB E6 8A
000001F0
00000200
          81 DD 0F 36 42 C2 48 4E 7E 90 4B 2F D0 CA C4 C4
                                                               FD 89 76 29 EB 25 00 17 B1 77 42 19 51 10 F0 59
00000210
00000220
           34 49 16 5F 42 28 22 11 D3 2A 00 75 54 0F 1A C3
          00 02 49 29 2C 94 0C 51 89 C7 12 A0 2C 7B B3 A6
00000230
00000240
           C8 9D 1A 52 78 86 C9 A6 00 91 88 D6 A2 A0 D6 B4
                                                               Vî •öXßPOÜbJ)°Æ
00000250
          03 56 8C 09 FE 94 58 E1 50 4F 9A 62 4A 29 A7 92
00000260
          6A 6A A9 67 CD 16 75 39 97 6C 69 B9 17 2D B1 A4
```

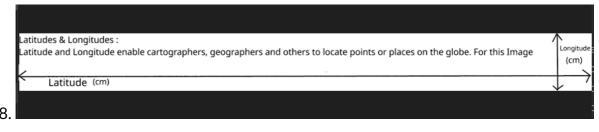
3. the solved he would look like

```
ëPNG. . . . IHDR
89 50 4E 47 0D 0A 1A 0A 00 00 00 0D 49 48
                                              44 52
                                              F3 37
00 00 18 2A 00 00 02 66 08 06 00
                                    00 00 3E
                                           70
                                              72 6F
   00
      00 08 BC
                7A 54
                             52 61
                                    77 20
          65
                 74
                       70
                              20
                                     78
                                                  00
                                                       x<sub>Γ¦ùi쀑 🧻 à s Y A</sub>
                B2 1B BB 0D 85
                                     73 15 59
                                              02 41
                EC 20 CB
                          CF
                                 B6 24
                                              FB C5
         C7 AA
                                       FB
         A5 EE
                16 9B 04
                             9C
                                    81
                                                       -²â0ê%<sub>7</sub> ÿJ=-g±'-|-
C7 FD 83 4F 88 25 B8 98 4A CD 2D 67 CF 27
                                              B6 D8
42 E7 A1 FA E7 33 EE 55 7C BC D7 FB 09 5D EA 6B
```

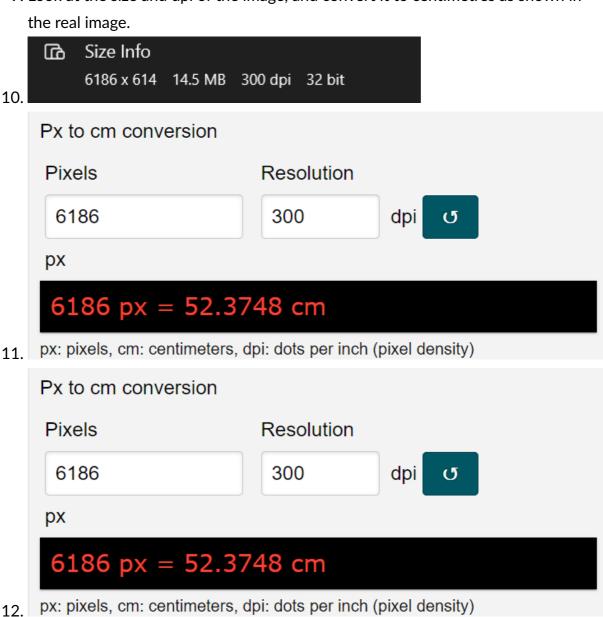
5. There is a hint too in the hex

```
0D 74 2D D7 4E C5 6B 00 00 00 00 49 45 4E
   AE 42 60 82 43 61 6E 27
                            74 20
                                   61 62
                                         6C
                                               20
     20 6C
               63
                     74 65
                            20
                                   78 61
                                                20
               69
                      6E
                                                6D
            74
                            42
                                   74
                                   70
                                                20
6C 6F
     63 61
               69
                      6E
                            54
                               68 65 20
                                         6E
                                               77
                20
                            64
                                                70
  6E 65 64 20
                      20 64
                            6F
                                         6E
                                            65 61
                                         6F
                                               20
63 61 6E 20 66 69 6E 64 20 69 74 20 72 69 67 68
74 3F +
```

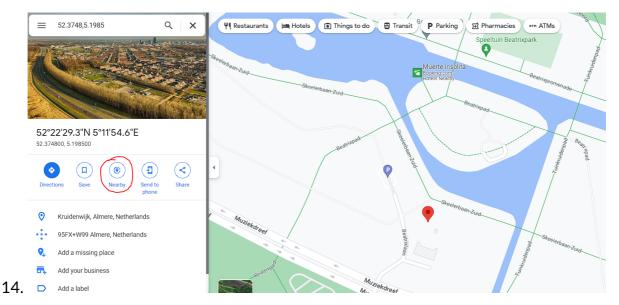
7. The repaired image looks like



9. Look at the size and dpi of the image, and convert it to centimetres as shown in the real image.



13. Now check the coordinates as given in the hint in hex



15. Search for the dock



Beatrixpark Dock

3.8 ★★★★★ (553)

Observation deck · Koning Willem-

Alexanderwetering Open 24 hours

"The best Dock on earth"

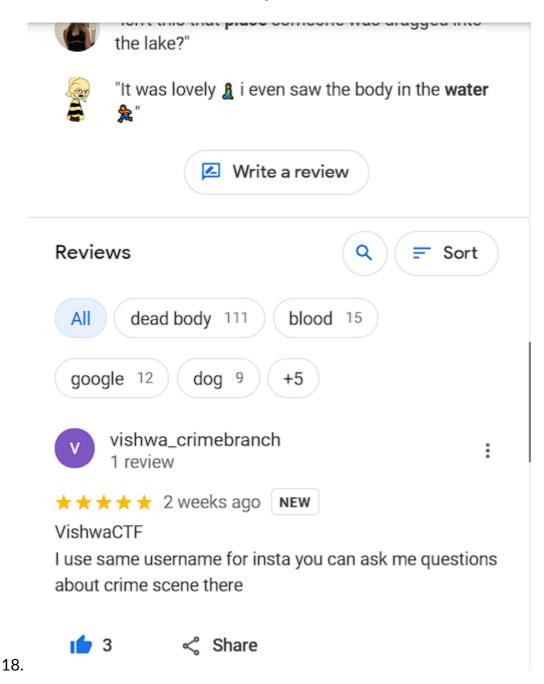
16.

17. Check the comments





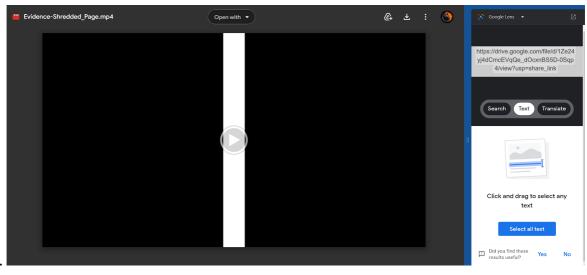




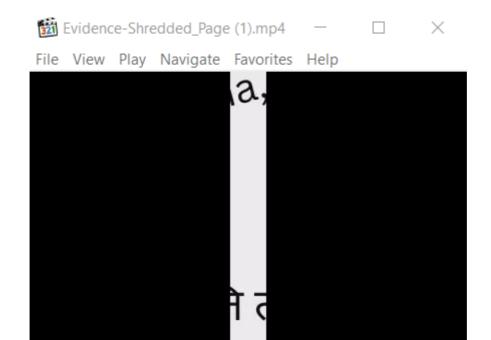
19. Check the insta account of the mentioned user 'vishwa_crimbranch'.



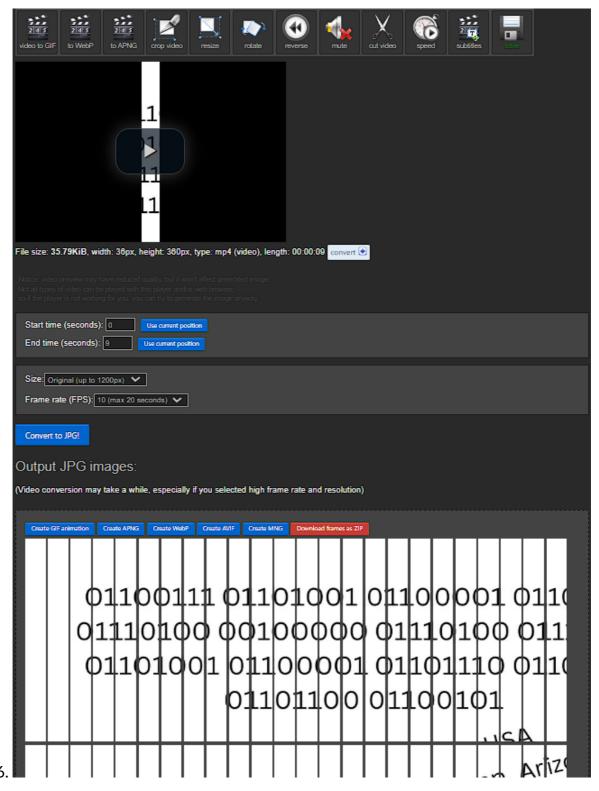
- 21. Follow the drive link.
- 22. We a mp4 file there.



23.



Playing 00:04 / 00:09 4x
25. Now according to the hint, get the frames of the video and join the shredded pieces of it.



27. We get the following

01100111 01101001 01100001 01101110 01110100 00100000 01110100 01110010 01101001 01100001 01101110 01100111 01101100 01100101

P9W8+2R Wittmann, Arizona, USA

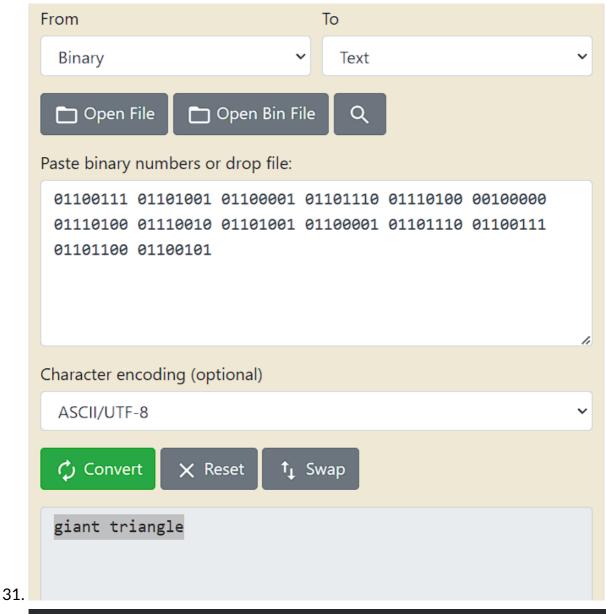
भवन्तः अन्वेषकत्वेन यत् इच्छन्ति तत् प्राप्नुयुः।

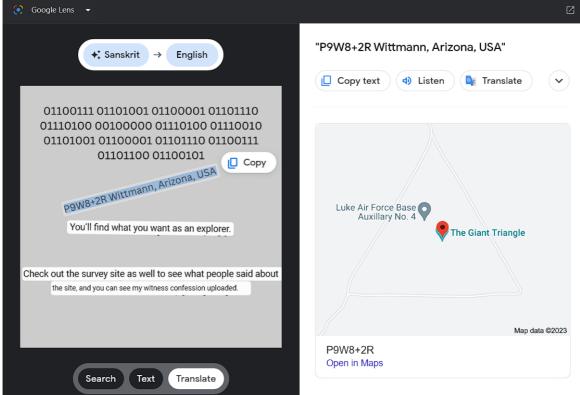
सर्वेक्षणं साइट् अपि पश्यन्तु यत् जनाः साइट् विषये किं अवदन्, अपि च भवन्तः मम साक्षीस्वीकारं अपलोड् कृतं द्रष्टुं शक्नुवन्ति।

28.

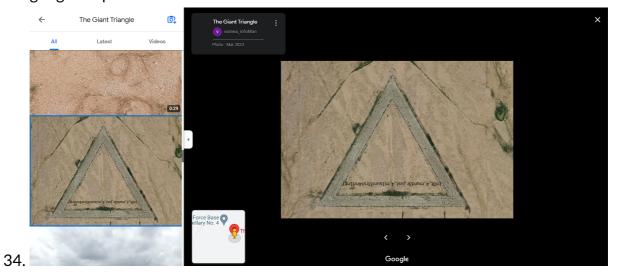
29. Translate the text and use the binary code and decode it







33. Now check the images in the comments and reviews of the giant triangle on google maps related to vishwactf



- 35. Now invert the image and get the flag.
- 36. The flag is
- $37.\ VishwaCTF\{n0t_4_murd3r_just_4_m1sund3rst4nd1ng\}$