Capture the Flag

Prepared by Dryapika Arseniy, Yakovyak Alexander,
Chornii Vladislav, Bakun Bogdan

Hiking Trail

Hiking trail

50

Someone who likes this photo went hiking. Find the name of creek near the hiking trailhead. Flag_format: CTF_FLAG{Creek_Name}

View Hint

Find_the_trai...

Barthezz Brick
@BarthezzB

(wip) Venice Italy - final house design.

So I finished another build for 99% today. Missing a few small pieces to finish the balconies and some facade details

#lego #venice #Italia #Italy #Venezia #moc #afol

7:14 PM · Oct 6, 2019 · Twitter for Android

7 Retweets **1** Quote Tweet **38** Likes

Volker Prinz
1,114 Tweets

Follow

Volker Prinz
@Volkeracho711

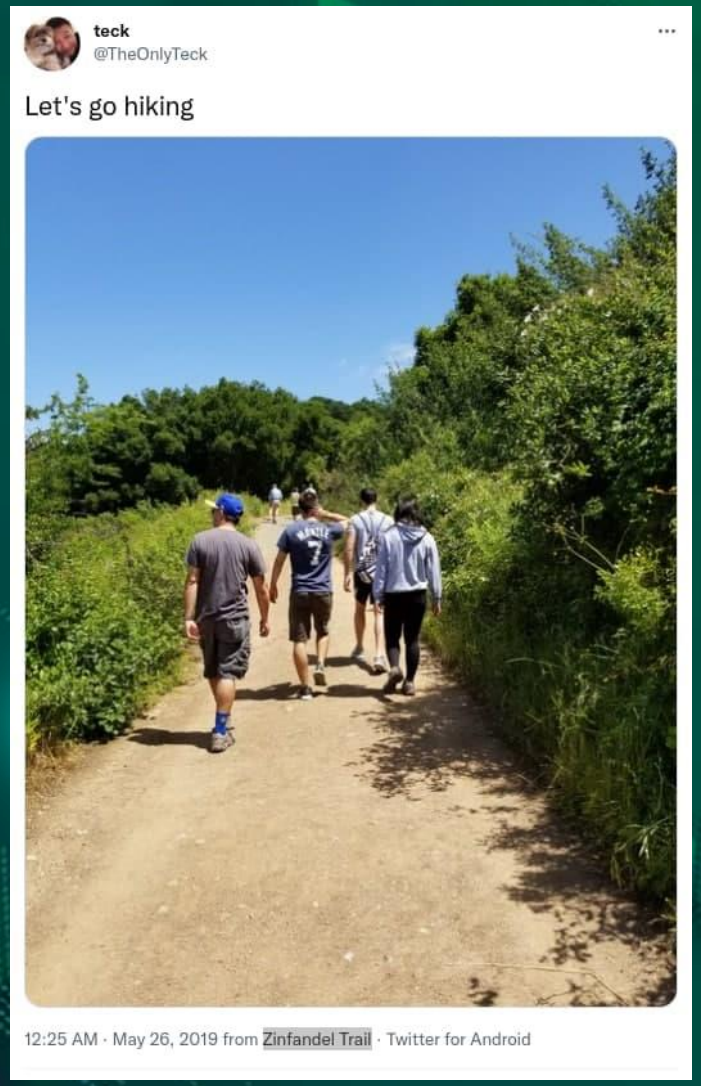
Volkaput

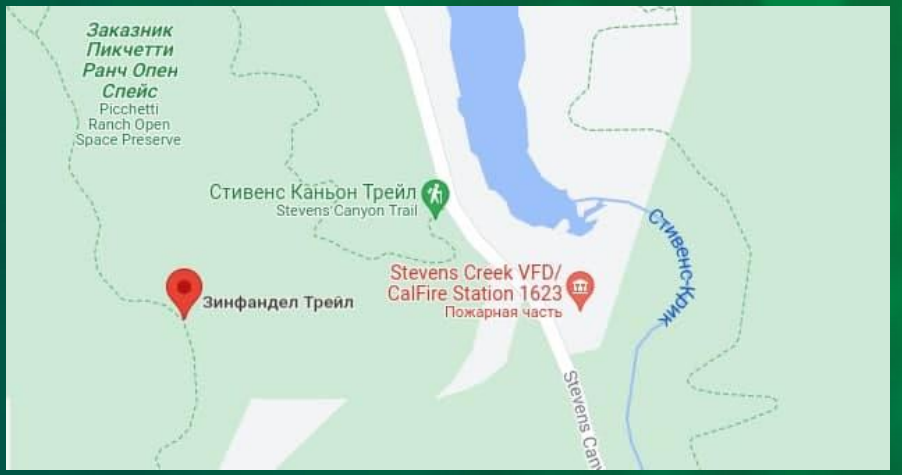
Cologne, Germany twitch.tv/volkaput Joined April 2013

359 Following **133** Followers

Not followed by anyone you're following

Hiking Trail





Park

Park

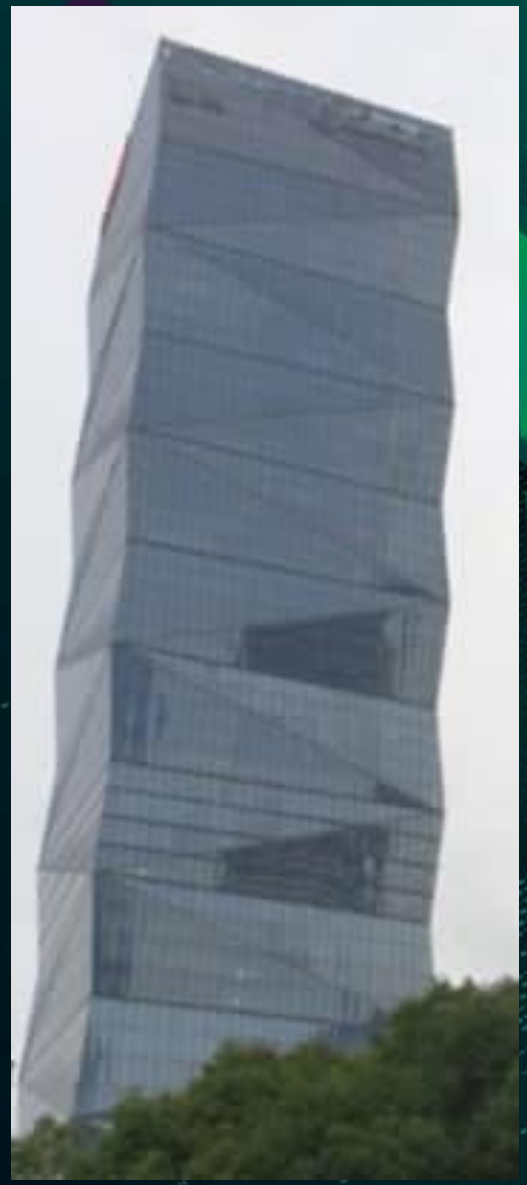
150

You are invited to the open-air event. Organizer sent you invite. Unfortunately all labels on map were damaged. Find the name of the park. Flag: CTF_FLAG{Park_Name}

image.png map.png

€	$	¥	¥
EU: Euro	US: Dollar	China: Yuan	Japan: Yen
₩	A$	£	₺
South Korea: Won	Australia: Dollar	UK: Pound	Turkey: Lira
R$	C$	₽	₹
Brazil: Real	Canada: Dollar	Russia: Rouble	India: Rupee

Park




Mairui Biology
Medical Treatment...
迈瑞生物医疗电子
股份有限公司
Lushan Rd
庐山路
Nanxijiang E St
Jishifu
吉士福
河西中央公园
Park
Yueshenghuo
lf-service Barbecue
悦生活自助烧烤
Lushan Rd
Acheng Furniture No.1
阿城家具NO.1
Nanxijiang E St
M
2
Hexi
Central Park
河西中央公园
CMB Building
招银大厦
Hexi Ave
Suken Buildi
苏盛大厦

Exhibition

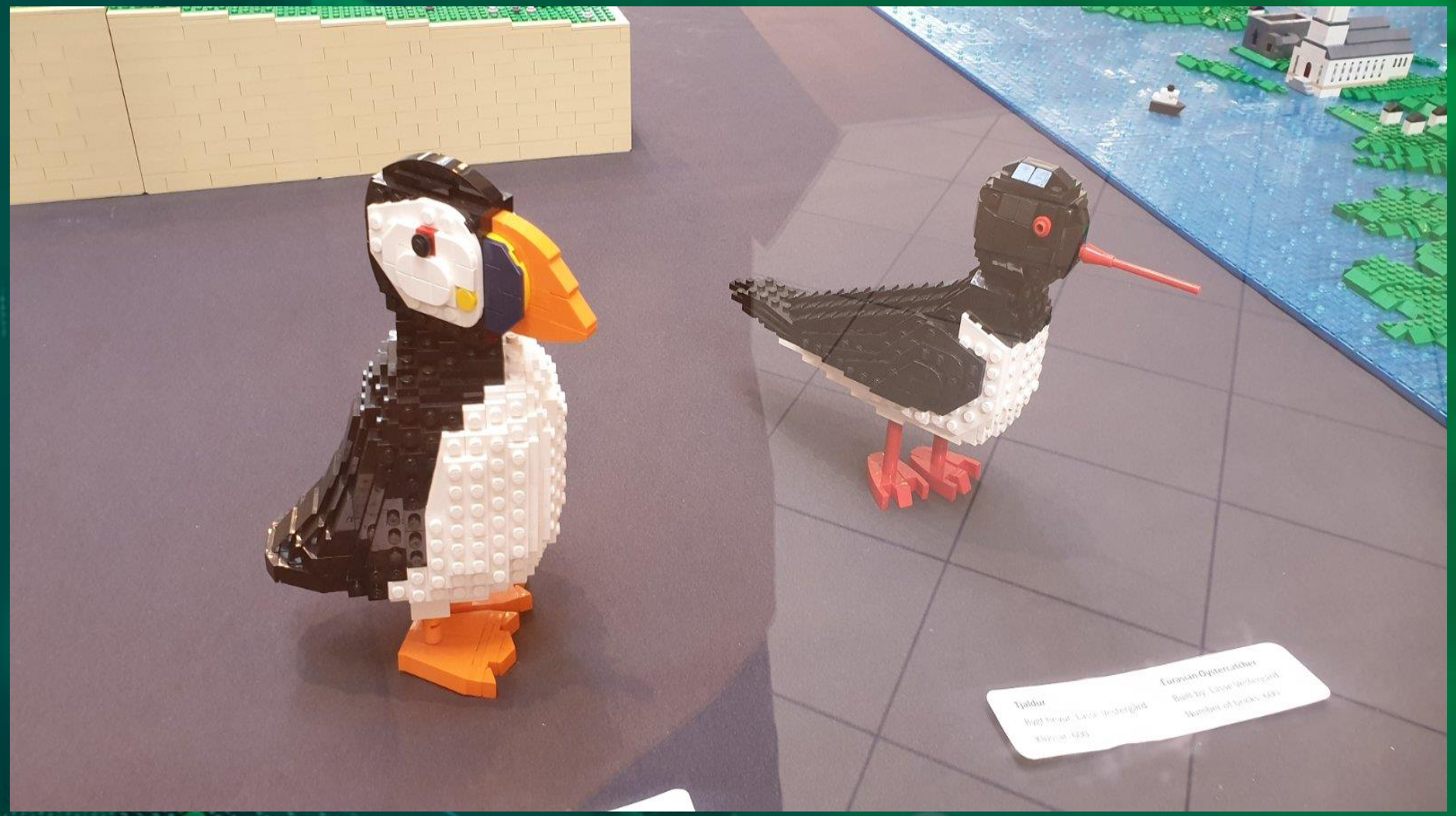
Exhibition

200

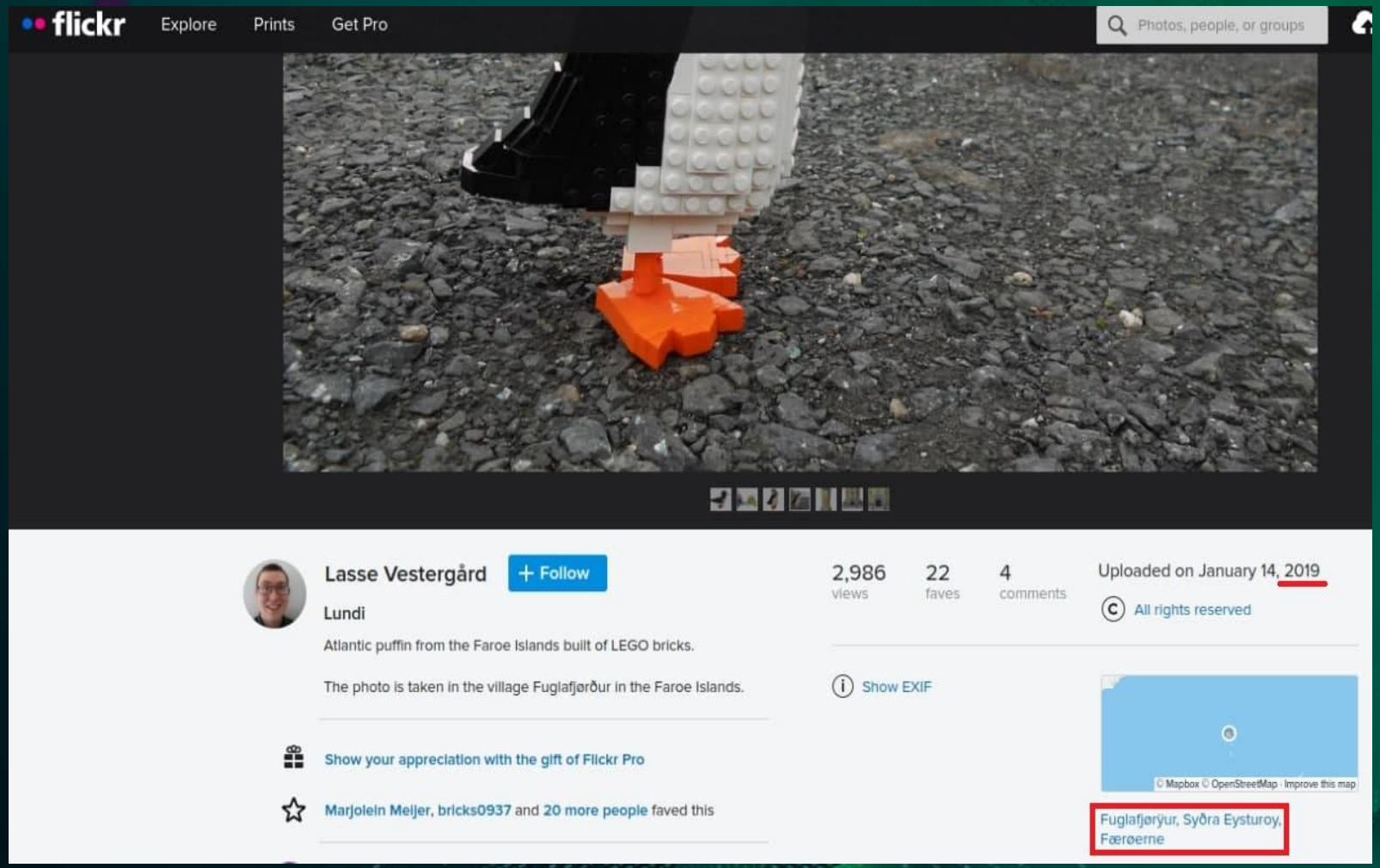
During pizza party, your friend talked about his hobby: in his free time he collects unusual figures from Lego parts. He recently saw a photo of his favorite birds with a mention of a planned exhibition, but no address was given. Knowing about your searching abilities, friend asked for help in finding the city and name of the center where the exhibition will be held.

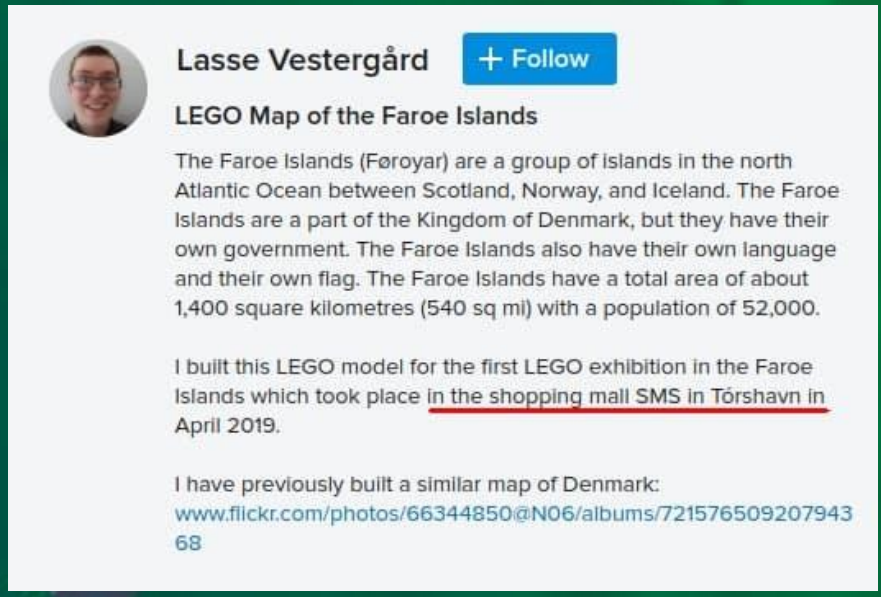
Note: flag format is CTF_FLAG{City_Center_Name}, use underscore symbol between words, words are in English.

OSINT-4.jpg



Exhibition


flickr
Explore
Prints
Get Pro
Photos, people, or groups
Lasse Vestergård
+ Follow
Lundi
Atlantic puffin from the Faroe Islands built of LEGO bricks.
The photo is taken in the village Fuglafjørður in the Faroe Islands.
2,986 views
22 faves
4 comments
Uploaded on January 14, 2019
All rights reserved
Show EXIF
Show your appreciation with the gift of Flickr Pro
Marjolein Meijer, bricks0937 and 20 more people faved this
© Mapbox © OpenStreetMap · Improve this map
Fuglafjørður, Syðra Eysturoy, Færøerne


Lasse Vestergård
+ Follow
LEGO Map of the Faroe Islands
The Faroe Islands (Føroyar) are a group of islands in the north Atlantic Ocean between Scotland, Norway, and Iceland. The Faroe Islands are a part of the Kingdom of Denmark, but they have their own government. The Faroe Islands also have their own language and their own flag. The Faroe Islands have a total area of about 1,400 square kilometres (540 sq mi) with a population of 52,000.
I built this LEGO model for the first LEGO exhibition in the Faroe Islands which took place in the shopping mall SMS in Tórshavn in April 2019.
I have previously built a similar map of Denmark:
www.flickr.com/photos/66344850@N06/albums/72157650920794368

Pizza Box


```
user@user:~$ cd Загрузки/
user@user:~/Загрузки$ zsteg pizzabox.png
imagedata           .. file: SGI image data, 65281-D, 65280 x 255, 0 channels
b1,rgb,lsb,xy       .. text: "PGS_SYNT{G@fgl_Cvmm@}"
b1,abgr,msb,xy      .. file: PGP Secret Key -
b2,r,msb,xy         .. text: ["U" repeated 8 times]
b2,g,msb,xy         .. text: "uUUUUUUUU"
b2,b,msb,xy         .. text: ["U" repeated 8 times]
b2,rgb,msb,xy       .. text: ["U" repeated 24 times]
b2,bgr,msb,xy       .. text: ["U" repeated 24 times]
b2,abgr,msb,xy      .. text: ["W" repeated 32 times]
b3,abgr,msb,xy      .. file: PGP Secret Sub-key -
b4,r,lsb,xy         .. text: "ffffffffffffffffffDDDDffffDDDDDDDDDDDDDDDDDDDDDDDDDDD\"\"\"\"\"
b4,r,msb,xy         .. text: ["U" repeated 16 times]
b4,g,lsb,xy         .. text: "ffffffffffffffffffDDDDffffDDDDDDDDDDDDDDDDDDDDDDDDDDD\"\"\"\"\"
b4,g,msb,xy         .. text: "]U]UUUUUUUUUUUUUUUU"
b4,b,lsb,xy         .. file: SoftQuad DESC or font file binary
b4,b,msb,xy         .. file: VISX image file
b4,rgb,msb,xy       .. text: ["U" repeated 48 times]
b4,bgr,msb,xy       .. text: ["U" repeated 48 times]
b4,abgr,msb,xy      .. text: "_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U_U"
user@user:~/Загрузки$
```

Stego 2

3.pdf

r0_crew_is_only_significant_thing

user@user: ~/Загрузки

```
user@user:~/Загрузки$ zsteg embed.png
b1,r,lsb,xy           .. file: PDF document, version 1.4
b1,g,lsb,xy           .. text: ")?fS__R_"
b1,rgba,lsb,xy        .. text: "QQ?qy7}s"
b1,abgr,msb,xy        .. text: "[_US{wuS"
b3,abgr,msb,xy        .. file: PGP Secret Sub-key -
b4,g,lsb,xy           .. text: "ve2TFR7F"
user@user:~/Загрузки$ zsteg -e b1,r,lsb,xy embed.png > 3.pdf
user@user:~/Загрузки$
```

Lunch

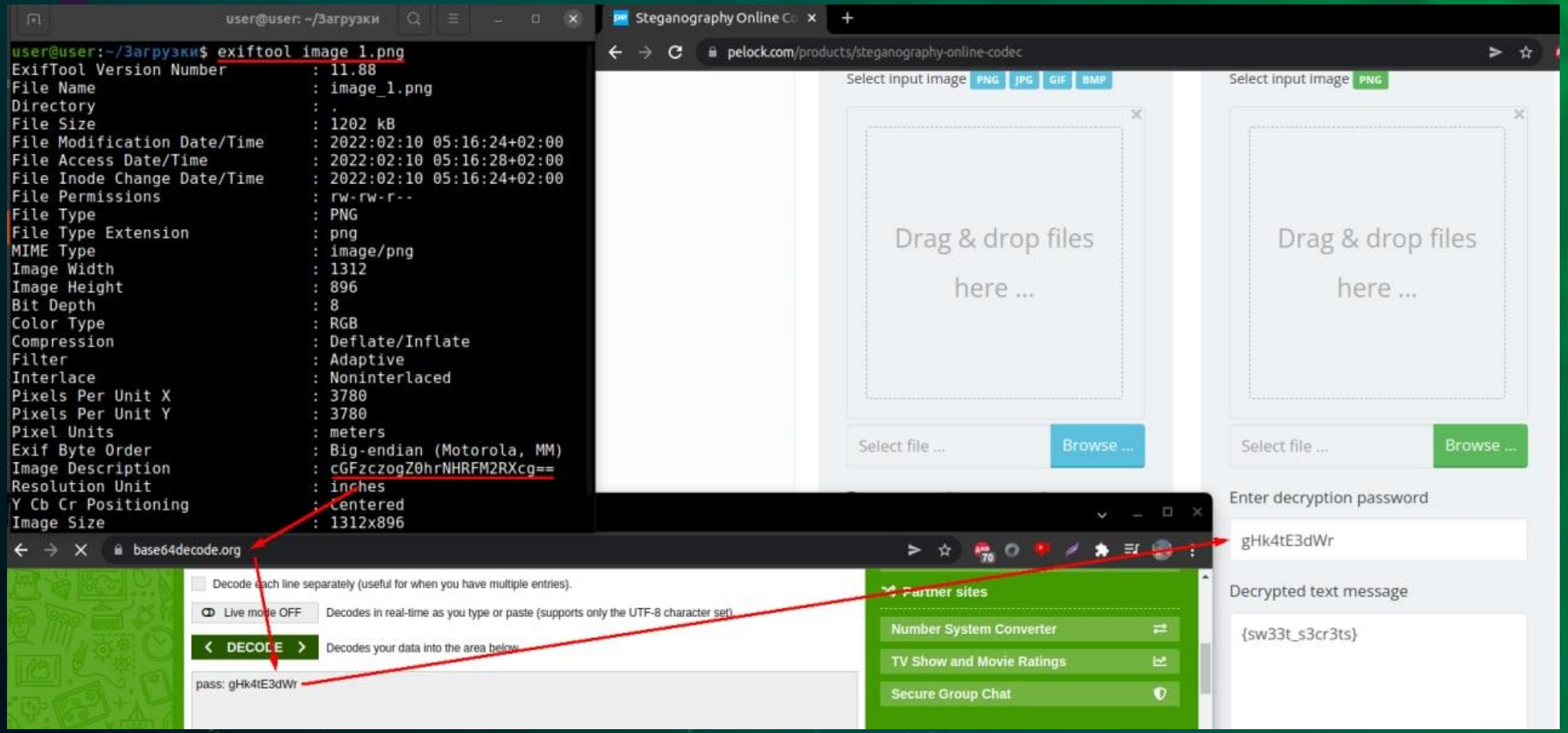
Lunch

70

Find secret ingredient in the lunch.

image_1.png

Lunch


user@user: ~/Загрузки
user@user:~/Загрузки$ exiftool image_1.png
ExifTool Version Number : 11.88
File Name : image_1.png
Directory : .
File Size : 1202 kB
File Modification Date/Time : 2022:02:10 05:16:24+02:00
File Access Date/Time : 2022:02:10 05:16:28+02:00
File Inode Change Date/Time : 2022:02:10 05:16:24+02:00
File Permissions : rw-rw-r--
File Type : PNG
File Type Extension : png
MIME Type : image/png
Image Width : 1312
Image Height : 896
Bit Depth : 8
Color Type : RGB
Compression : Deflate/Inflate
Filter : Adaptive
Interlace : Noninterlaced
Pixels Per Unit X : 3780
Pixels Per Unit Y : 3780
Pixel Units : meters
Exif Byte Order : Big-endian (Motorola, MM)
Image Description : cGFzczogZ0hrNHRFM2RXcg==
Resolution Unit : inches
Y Cb Cr Positioning : Centered
Image Size : 1312x896
Steganography Online Co
pelock.com/products/steganography-online-codec
Select input image PNG JPG GIF BMP
Drag & drop files here ...
Select file ...
Browse ...
Select input image PNG
Drag & drop files here ...
Select file ...
Browse ...
base64decode.org
Decode each line separately (useful when you have multiple entries).
Live mode OFF
Decodes in real-time as you type or paste (supports only the UTF-8 character set)
DECODE
Decodes your data into the area below.
pass: gHk4tE3dWr
Partner sites
Number System Converter
TV Show and Movie Ratings
Secure Group Chat
Enter decryption password
gHk4tE3dWr
Decrypted text message
{sw33t_s3cr3ts}

Stego 1


50 4B 03 04 14 00 08 00 08 00 C2 A8 2B 4E 00 00
00 00 00 00 00 00 00 00 00 00 0A 00 10 00 73 74
65 67 6F 31 2E 74 78 74 55 58 0C 00 45 EC 38 5C
1C E9 38 5C F5 01 14 00 05 C1 41 0E 80 20 0C 04
C0 BB AF 58 EF 7E C7 07 54 B2 08 81 B4 A4 14 13
7D BD 33 A7 66 F3 58 2A C1 FE 42 0D B9 CB 8D 42
E7 81 6B 05 42 1A 31 9C A9 4E A2 9B 35 98 42 3C
95 FA 10 B3 7E DC B7 1F 50 4B 07 08 E1 3A 61 B8
40 00 00 00 43 00 00 00 50 4B 01 02 15 03 14 00
08 00 08 00 C2 A8 2B 4E E1 3A 61 B8 40 00 00 00
43 00 00 00 0A 00 0C 00 00 00 00 00 00 00 00 40
A4 81 00 00 00 00 73 74 65 67 6F 31 2E 74 78 74
55 58 08 00 45 EC 38 5C 1C E9 38 5C 50 4B 05 06
00 00 00 00 01 00 01 00 44 00 00 00 88 00 00 00
00 00 89 50 4E 47 0D 0A 1A 0A 00 00 00 0D 49 48
44 52 00 00 02 80 00 00 02 80 08 02 00 00 00 83
AF 5E 74 00 00 00 06 62 4B 47 44 00 FF 00 FF 00
FF A0 BD A7 93 00 04 AD 2F 49 44 41 54 78 DA EC
BD 69 77 1B 49 92 2D 78 AF 99 47 00 20 41 52 5C
44 52 BB 32 AB B2 BA BA AB FB BD 99 33 5F DE FF
FF 05 33 E7 BC D3 3D D3 AF 5F AF 95 BB 52 A9 8D
24 80 08 37 9B 0F EE B1 80 04 24 22 93 4C 51 A9
B0 53 C5 A4 C0 40 AC 1E 6E 7E 6D B9 97 F8 9D 1A
C9 8F 72 5C 07 01 DE 99 F3 71 CA C6 DF B8 FE F9
3B E0 DC EC 7A E9 D8 E8 46 B8 FB 26 37 1F 90 CD
EE B3 C8 46 37 C8 CD E2 9D 1A 6F 58 33 DE D6 DD
B7 0D AF 17 66 F6 EB 9F CB 47 BD 3F 1B BE BE 66
BC DD E9 C1 37 BB 9F 6B DE C7 1B 79 5F 7E 93 E9
STEGO_SO_FUN
ADDTEXT.COM
50 4B 03 04 14 00 08 00 08 00 C2 A8 2B 4E E1 3A
61 B8 40 00 00 00 43 00 00 00 0A 00 10 00 73 74
65 67 6F 31 2E 74 78 74 55 58 0C 00 45 EC 38 5C
1C E9 38 5C F5 01 14 00 05 C1 41 0E 80 20 0C 04
C0 BB AF 58 EF 7E C7 07 54 B2 08 81 B4 A4 14 13
F3 58 2A C1 FE 42 0D B9 CB 8D 42
1A 31 9C A9 4E A2 9B 35 98 42 3C
DC B7 1F 50 4B 07 08 E1 3A 61 B8
00 00 00 50 4B 01 02 15 03 14 00
A8 2B 4E E1 3A 61 B8 40 00 00 00
00 0C 00 00 00 00 00 00 00 00 40
00 73 74 65 67 6F 31 2E 74 78 74
EC 38 5C 1C E9 38 5C 50 4B 05 06
00 01 00 44 00 00 00 88 00 00 00

Symbols Can Pretend

Symbols Can Pretend

30

Try to decode this.

Note: Flag format is CTF_FLAG{}

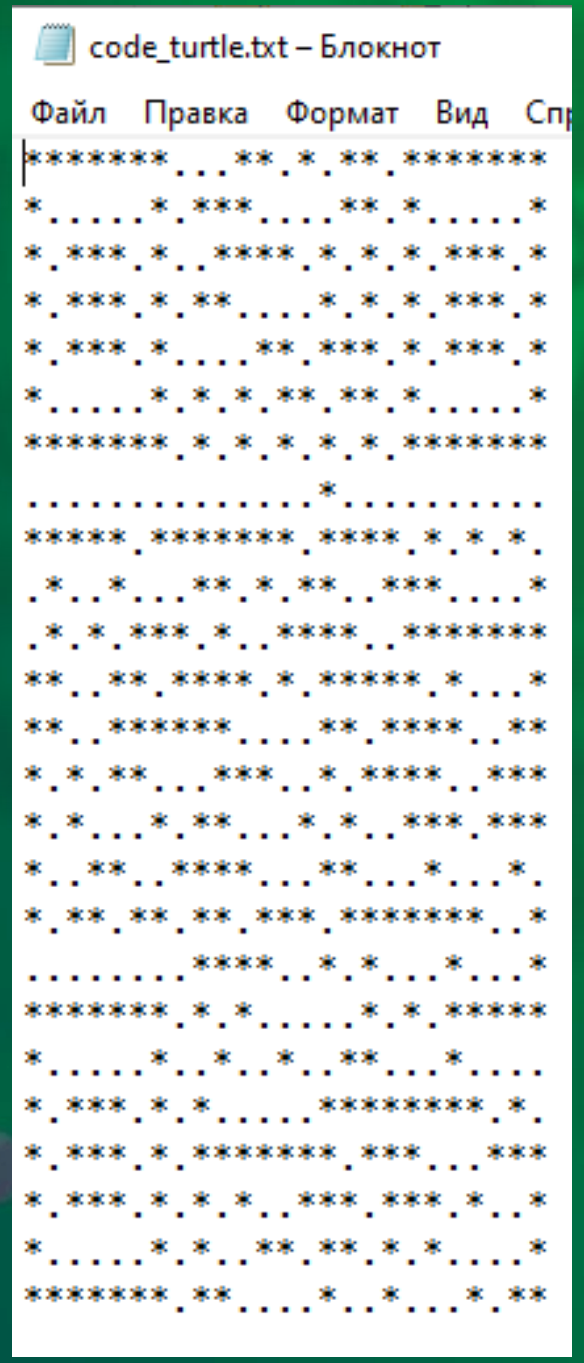
View Hint

code.txt

symbols_can_pretend_turtle.py - D:\Practice\2022-knu-ctf\MISC\symbols_can_pretend\symbols_can_pretend_turtle.py (3.9.1)

File Edit Format Run Options Window Help

```
import turtle
turtle.speed(0)
turtle.hideturtle()


class ChainCodePicture:

    def __init__(self, codes, scale, color):
        self._codes = codes
        self._scale = scale
        self._color = color
        self._kkstr = codes[len(codes) - 1][0]
        self._x0 = -400
        self._y0 = (self._kkstr / 2 + 1) * self._scale

    def show(self):
        # turtle.setpos(self._x0, self._y0)

        for posl in self._codes:
            turtle.penup()
            y = self._y0 - posl[0] * self._scale
            x = self._x0 + (posl[1]) * self._scale
            # turtle.setpos(self._x0, self._y0)
            for n in range(posl[2]):

                turtle.setpos(x, y)
                turtle.setheading(0)
                turtle.pendown()
                turtle.color(self._color, self._color)
                turtle.begin_fill()

                for i in range(4):
                    turtle.fd(self._scale)
                    turtle.left(90)
                turtle.end_fill()
                x += self._scale
                turtle.penup()
        turtle.done()
```



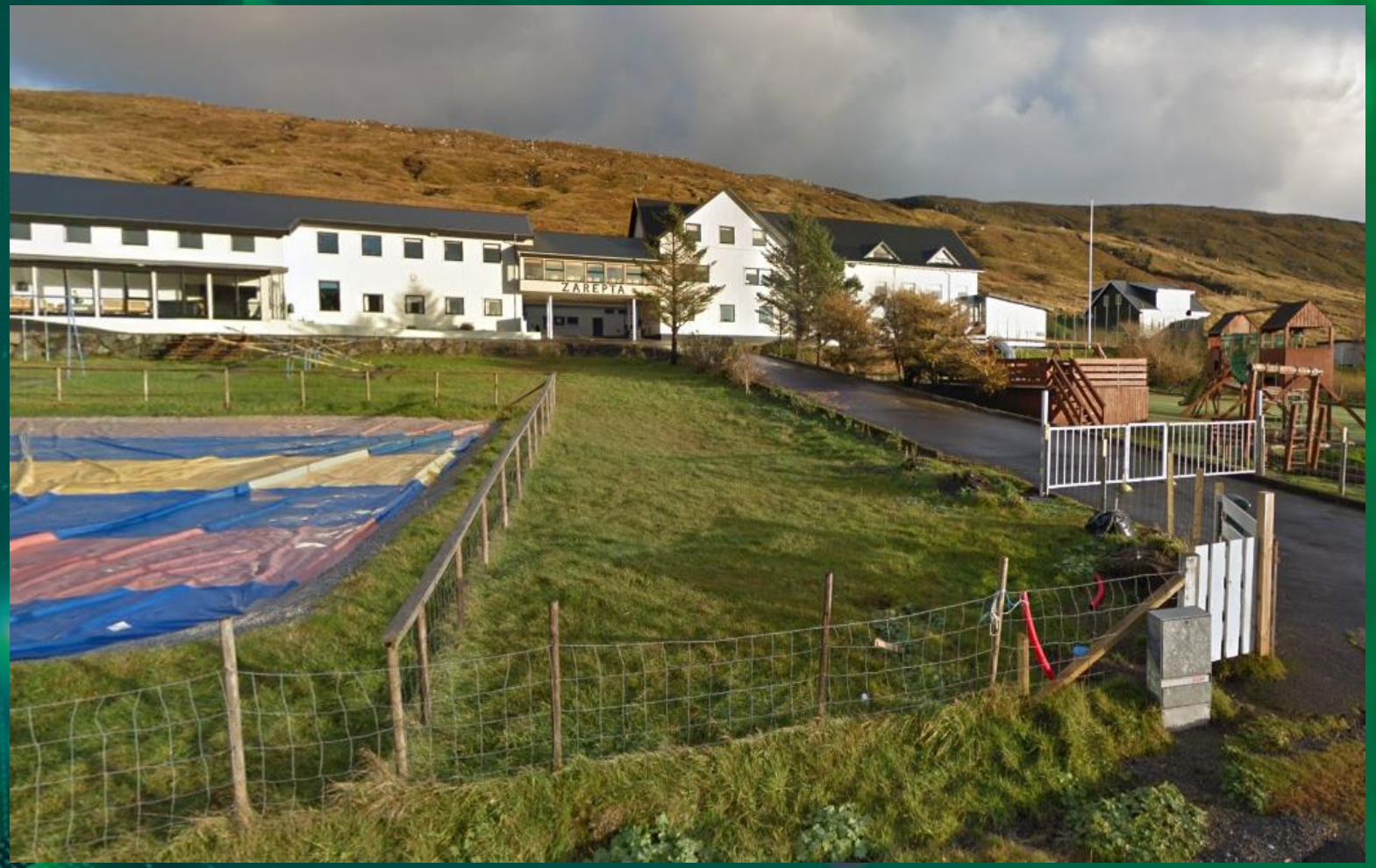
Windy island

Windy island

200

You woke up on an island. There was a very cool wind. There was no one around excepting a dozen sheep. Going further, you saw these houses. Try to understand where are you: name of island, city and what is in front of you. Flag format: CTF_FLAG{Place_City}

Windy island



Hard:

- - there was no configured team work
- - deal with reverse engineering, android
- - find the right tool to solve a particular task
- - some tasks had blurry conditions

Learned:

- - search and verify information from several different sources
- - use Linux and tools on it to the maximum
- - think outside the box
- - got acquainted with the methods of cryptography, steganography, reverse engineering and OSINT