

Exercise 2: Encoding

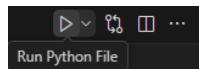
Purpose: Learn how characters are represented in computers.

Instructions

1. In Visual Studio Code, open the Encoding sample.

Double click 2_Encoding.py.

2. Run the file with the default values.



3. Replace “h” with “l” and rerun.



4. In the following exercises, replace the text with the listed values.

5. Each group member will practice encoding characters into binary numbers.

Show your team assistant the matching result on the sheet before continuing!

- a. Team Member 1: Encode

- i. a
- ii. b
- iii. c
- iv. h
- v. z
- vi. ,

(Comma)

- b. Team Member 2: Encode

- i. A
- ii. B
- iii. C
- iv. H
- v. Z
- vi. .

(Period)

6. Each group member will practice encoding words.

A word is just a sequence of letters, which will become a sequence of numbers!

Show your team assistant the matching result on the sheet before continuing to the next word.

- a. Team Member 1: Encode

- i. cat
- ii. dog
- iii. fish
- iv. bear

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- b. Team Member 2: Encode
 - i. YOU
 - ii. SIX
 - iii. NOPE
 - iv. FISH
7. Each group member will practice encoding phrases.
Keep track of your phrase in a text file.
Show your team assistant the result **before** continuing.
 - a. Team Member 1: Encode
A SPACE is also a character!!!
 - i. Hello, fellow human
 - b. Team Member 2: Encode
A SPACE is also a character!!!
 - i. Hi, how are you?
8. Check your answers when you're done!
Decode secrets/2_answers.txt.gpg.
 - a. Right click on the file.
 - b. Select Decrypt.
 - c. Enter in the password supplied by the team assistant.