**Use ChatGPT to develop Morse practice sets in Python**

Steve:

Please provide a Python script to accept a string of letters and an integer number, then print out that number of groups of 5 letters where each letter from the list is used randomly with equal probability.

ChatGPT:

Sure, here is a Python script that accepts a string of letters and an integer number, then prints out the specified number of groups of 5 letters, using each letter from the list randomly with equal probability.

Code:

import random

def generate\_groups(letters, num\_groups):

# Ensure the letters are in a list

letters = list(letters)

# Generate the specified number of groups

for \_ in range(num\_groups):

group = random.choices(letters, k=5)

print(''.join(group))

# Example usage:

letters\_input = input("Enter a string of letters: ")

num\_groups\_input = int(input("Enter the number of groups: "))

generate\_groups(letters\_input, num\_groups\_input)

This script does the following:

1. Converts the input string of letters into a list.

2. Uses the `random.choices()` method to select 5 letters randomly from the list, with equal probability for each letter.

3. Prints the specified number of groups of these randomly chosen letters.

PS C:\Users\N5QC\Documents\Repositories\Python\Lessons\_and\_Logs\Morse\_Code\Code> python practice\_set\_generator.py

Enter a string of letters: fl

Enter the number of groups: 25

fffll

fllfl

lfflf

llflf

fflll

lfffl

lflff

llffl

lfflf

flffl

flffl

fffff

lflfl

fllfl

flffl

fllfl

lflll

flfff

fflfl

lflff

llflf

lflfl

llffl

lllfl

llffl

PS C:\Users\N5QC\Documents\Repositories\Python\Lessons\_and\_Logs\Morse\_Code\Code>

 Rev. 1 -- Update Output Formating -- 7/21/24

A piece of paper with a drawing on it

Description automatically generated

A yellow background with black text

Description automatically generated

Steve:

Please update the output formatting as follows:

1. Begin output with “vvv   “
2. Follow each letter with a space.
3. Include an extra space after each group of 5 letters.
4. Insert “  =  “ after every 5 groups of 5 letters.
5. Finish the output with “  =“

ChatGPT:

Sure, here's the updated Python script with the specified output formatting:

Python

===========================================================

import random

def generate\_groups(letters, num\_groups):

letters = list(letters)

output = "vvv "

for i in range(num\_groups):

group = random.choices(letters, k=5)

formatted\_group = ' '.join(group) + ' '

output += formatted\_group

if (i + 1) % 5 == 0:

output += " = "

output += "="

print(output)

# Example usage:

letters\_input = input("Enter a string of letters: ")

num\_groups\_input = int(input("Enter the number of groups: "))

generate\_groups(letters\_input, num\_groups\_input)

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This script:

1. Begins the output with "vvv ".
2. Follows each letter with a space.
3. Includes an extra space after each group of 5 letters.
4. Inserts " = " after every 5 groups of 5 letters.
5. Finishes the output with " =".

Use Triple Quotes (either single ‘’’ or double “””) to create a multi – line comment 🡪 Verbose Revision Notes.

PS C:\Users\N5QC\Documents\Repositories\Python\Lessons\_and\_Logs\Morse\_Code\Code> python practice\_set\_generator.py

Enter a string of letters: fl

Enter the number of groups: 25

vvv l f l l f f f f l l f l l l l l l f f f l l f l f = l f f l f l f l f l l l f l l l l l l f f f f f f = l l l f l l f f f l f l l f

l f l f f f l l f f l = l f l l l f l f l f l f f f f l l l l l f f f l l = l f f l f l f f l f f l l f l f f l l f f l f f f = =

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 Rev. 2 -- Second Update to Output Formatting -- 7/21/24

Please revise his script:

1. Begins the output with "vvv ".
2. Follows each letter with a space.
3. Includes an extra space after each group of 5 letters.
4. Inserts " = " after every 5 groups of 5 letters.
5. Finishes the output with a single " =", do not duplicate if the “ = “ from point 4 is already the end.

Drills:

**F L**

PS C:\Users\N5QC\Documents\Repositories\Python\Lessons\_and\_Logs\Morse\_Code\Code> python practice\_set\_generator.py

Enter a string of letters: fl

Enter the number of groups: 25

vvv l l l l l f l l f l l f f f f f l f f f f l l f f = l l l f f f f l f l l l f l f l f l l l l f l f f = l f f f f f f f f f f l l f l f f f l f l f f l f = l f f f l l l f l l f l l l l f l l l l l f l l l = l l l l l l l l l l f f f f f f f l f l l l l f f =

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**P J**

PS C:\Users\N5QC\Documents\Repositories\Python\Lessons\_and\_Logs\Morse\_Code\Code> python practice\_set\_generator.py

Enter a string of letters: pj

Enter the number of groups: 25

vvv j p p j j j j j j j p j j j p p p p j p p j p p p = p j j p p j p j j p j p j p j p p j p j j p p p p = j j j p p p j p p j j j j j p j j j j j p p p j j = p p p p j p p j j p p j p p p p j j j j p p p j j = p p j j p j p j j p p p p j p j p j j j j p p p p =

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**0 (zero)**

PS C:\Users\N5QC\Documents\Repositories\Python\Lessons\_and\_Logs\Morse\_Code\Code> python practice\_set\_generator.py

Enter a string of letters: 0

Enter the number of groups: 25

vvv 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 = 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 = 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 = 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 = 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 =

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Sure, here's the revised Python script to match the updated requirements:

import random

def generate\_groups(letters, num\_groups):

letters = list(letters)

output = "vvv "

for i in range(num\_groups):

group = random.choices(letters, k=5)

formatted\_group = ' '.join(group) + ' '

output += formatted\_group

if (i + 1) % 5 == 0 and (i + 1) != num\_groups:

output += "= "

output += "="

print(output)

# Example usage:

letters\_input = input("Enter a string of letters: ")

num\_groups\_input = int(input("Enter the number of groups: "))

generate\_groups(letters\_input, num\_groups\_input)

This script ensures:

1. Begins the output with "vvv ".
2. Follows each letter with a space.
3. Includes an extra space after each group of 5 letters.
4. Inserts " = " after every 5 groups of 5 letters.
5. Always finishes the output with " =".