17/9/25 Task 8.1 implement Python generator and decorators

Aim:- Write a Python program to implement Python generator and decorators.

Algorithm:-

1) Start Function
2) initialize counter set value to 0
3) Generate values.
    * yeild the current value
    * Increment value by 1
4) Create Generator object:
5) iterate and print value
    * For each value produced by the generator object:
    * print value.

8.1 Program:-

```
def my-generator(n):
  # initalize counter
    value =0
  # loop until counter is less than n
while value <n:
    # produce the current value of counte.
  yeild value
# increment the counter
```

OUTPUT:-

0

1

2

```
        value += 1
# iterate over the generator object provided
by my_generator
for value in my_generator(3):
    # print each value produced by generator
    print(value)
```

Result:- Thus, the program Python generator has been executed and implemented successfully

Task 8.2 :- Imagine you are working on a messaging application that needs to format User's preferences.

Aim:- Write a Python program to implement Python generator and decorators.

Algorithm:-

1) Create Decorators:

2) Define Functions:

* Define shout function to return th input text. Apply

3) Define Greet function:

* Accept a function [Func] as input

4) Execute the program:

* call greet [shout] to print the greeti in uppercase

* call greet [whisper] to print the greeti in lowercase.

Program:-

```
def uppercase_decorator [Func]:
    def wrapper [text]:
        return Func [text]. upper. [7
return wrapper
```

OUTPUT:-

Hi, I AM created By a FUNCTION passed as an argument.

hi, i am created by a function passed as a argument

```
def lowercase_decorator[func]:
    def wrapper[text]:
        return func[text].lower[]
    return wrapper.

@uppercase_decorator
    def shout[text]:
    return text

greet[shout]
greet[whisper.
```

VELTECH	
EX No.	8
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	
TOTAL (70)	15
SIGNATURE WITH DATE	

Result:- Thus, the program to implement python generator and decorators was successfully executed and the output verified