

Iterator and Generator

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Iterator = we can traverse a list

We can get the next element of the list till the end of list

Sequences Generated Programmatically ---

Then we can provide iterator for that also ---- these are called as GENERATOR

Write a program for prime numbers between 1 and 100

HW

1. Write a generator that operates on a dictionary and yields the QUOTE OF THE DAY

```
{
    0: "Where there is a will there is a way ",
    1: _
    2:
    ..
    7
}
```

Get the next quote of the day and print it

Menu

1. Show all quotes
2. Add a new quote
3. Get the next quote
4. Quit

2. Write a generator to print the cubes of numbers from 1 to n (accept n from user)

3. Write a generator that gives a random number

```
import random
random.randint(start,end)
```

Ask the user if user wants to see a pattern

if user says =

using the generator get the next number and pass it to the pattern function

4. Write a generator that gives the Fibonacci number

1,1,2,3,5,8,13,.....

Either you give a restricted n

Ask the user do you the next fibo number , Y (loop should run until user says no)

yield the next number

OR if exception occurs , just reinitialize the generator

a = genfunc()

OR

Just put a while True

