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shengtatng ~

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Finger Exercises due Oct 27, 2022 07:30 +08 Completed

#### Exercise: genPrimes

5.0/5.0 points (graded)

#### **ESTIMATED TIME TO COMPLETE: 10 minutes**

Write a generator, <code>genPrimes</code>, that returns the sequence of <u>prime numbers</u> on successive calls to its <code>next()</code> method: 2, 3, 5, 7, 11, ...

# Hints

#### Ideas about the problem

Have the generator keep a list of the primes it's generated. A candidate number x is prime if (x % p) != 0 for all earlier primes p.

```
1 def genPrimes():
      primes = [] # primes generated so far
3
      last = 1  # last number tried
      while True:
5
          last += 1
6
          for p in primes:
7
              if last % p == 0:
8
                  break
9
          else:
10
              primes.append(last)
              yield last
```

Press ESC then TAB or click outside of the code editor to exit

Correct

#### Test results

CORRECT
See full output
See full output

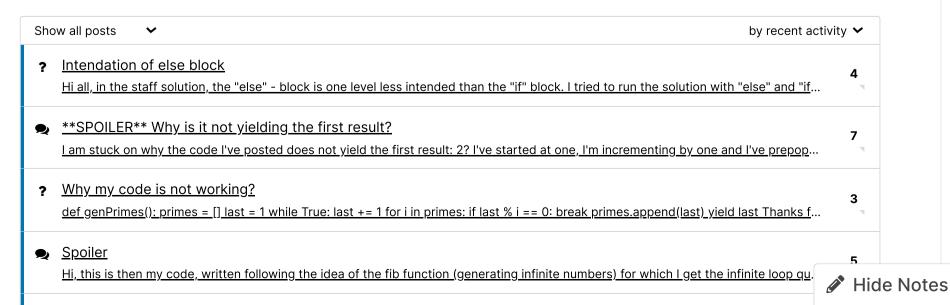
Submit

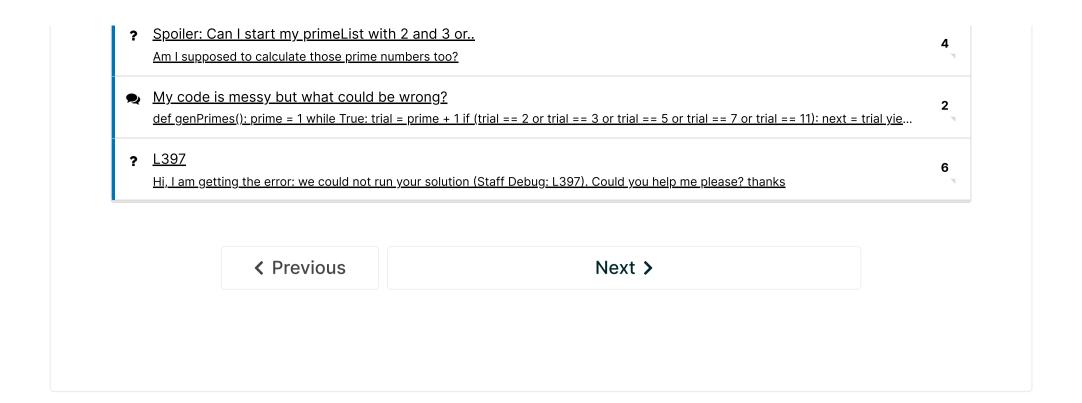
#### Exercise: genPrimes

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