Lab01-ex3

Python Tutor: Visualize code in Python, JavaScript, C, C++, and Java

Python 3.6
(known limitations)

```
23
24      print()
25
26
27
28  else:
29      for num in range( num, 0 ,-1):
30          if num > 1:
31              for i in range(2,num):
32                  if (num % i) ==0:
33                      print(num,"is not a prime number")
34                      #print(i,"times",num//i,"is",num)
35                      break
36                  else:
37                      print(num,"is a prime number")
38                      break
39
40          else:
41              print(num,"is not a prime number")
42
43      print()
```

Edit this code

Print output (drag lower right corner to resize)

```
Enter max value:
11
Enter Y/N
Enter Y/N (OnlyPrime?):N

11 is a prime number
10 is not a prime number
9 is a prime number
8 is not a prime number
7 is a prime number
6 is not a prime number
5 is a prime number
4 is not a prime number
3 is a prime number
1 is not a prime number
```

Frames Objects

Global frame

num	1
Prime	"N"
i	2

Python Tutor: Visualize code in Python, JavaScript, C, C++, and Java

Python 3.6
(known limitations)

```
1  print("Enter max value:")
2  num = int(input())
3  print("Enter Y/N  ")
4  Prime = input("Enter Y/N (OnlyPrime?):")
5  print()
6  if Prime == "Y":
7      for num in range( num, 0 ,-1):
8          if num > 1:
9              for i in range(2,num):
10                 if (num % i) ==0:
11                     print(" ")
12                     #print(i,"times",num//i,"is",num)
13                     break
14
15                 else:
16                     print(num,"is a prime number")
17                     break
18
19
20         else:
```

Edit this code

line that just executed
next line to execute

<< First < Prev Next > Last >>

Print output (drag lower right corner to resize)

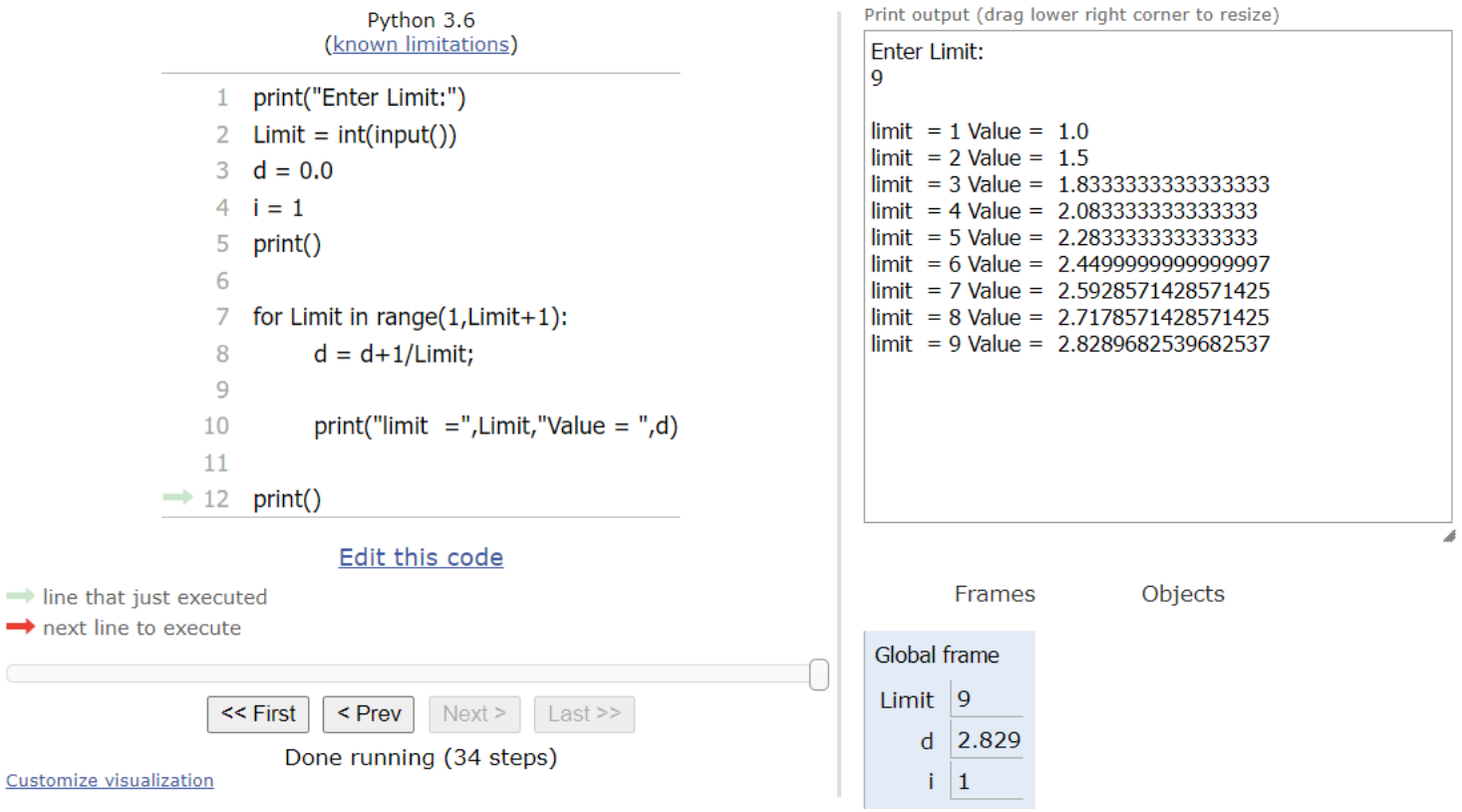
```
Enter max value:
11
Enter Y/N
Enter Y/N (OnlyPrime?):Y

11 is a prime number

9 is a prime number

7 is a prime number

5 is a prime number

3 is a prime number
```

Frames Objects

Global frame

num	1
Prime	"Y"
i	2

Lab01-ex4


Python 3.6
(known limitations)
1 print("Enter Limit:")
2 Limit = int(input())
3 d = 0.0
4 i = 1
5 print()
6
7 for Limit in range(1,Limit+1):
8 d = d+1/Limit;
9
10 print("limit =",Limit,"Value = ",d)
11
12 print()
Edit this code
line that just executed
next line to execute
<< First
< Prev
Next >
Last >>
Done running (34 steps)
Customize visualization
Print output (drag lower right corner to resize)
Enter Limit:
9
limit = 1 Value = 1.0
limit = 2 Value = 1.5
limit = 3 Value = 1.8333333333333333
limit = 4 Value = 2.083333333333333
limit = 5 Value = 2.283333333333333
limit = 6 Value = 2.4499999999999997
limit = 7 Value = 2.5928571428571425
limit = 8 Value = 2.7178571428571425
limit = 9 Value = 2.8289682539682537
Frames
Objects
Global frame
Limit 9
d 2.829
i 1