Lab-4.1

ทำการประกาศค่าตัวแปรต่างๆ และใส่ค่านั้นๆ

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

Python 3.6
(known limitations)

```
1  class structureclass ():
2      scope = 5
3      height = 10
4      def formulacalculate (CUlate):
5          CUlate.Measure = 3.14*(CUlate.scope*CUlate.scop
6          return CUlate.Measure
7  class structureclass2():
8      scope = 7
9      height = 13
10     def formulacalculate2 (CUlate2):
11         CUlate2.Measure = 3.14*(CUlate2.scope*CUlate2.s
12         return CUlate2.Measure
13 CUlate = structureclass()
14 CUlate2 = structureclass2()
15
16 print("answerCUlate is "+ str(CUlate.formulacalculate()
17 print("answerCUlate2 is "+ str(CUlate2.formulacalculate
```

Edit this code

line that just executed
next line to execute

<< First | < Prev | Next > | Last >>

Step 5 of 14

Customize visualization

Print output (drag lower right corner to resize)

Frames Objects

Global frame
- structureclass
- structureclass2
- CUlate
- CUlate2

structureclass class

formulacalculate	function formulacalculate(CUlate)
height	10
scope	5

structureclass2 class

formulacalculate2	function formulacalculate2(CUlate2)
height	13
scope	7

structureclass instance

structureclass2 instance

ผลลัพ

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

Python 3.6
(known limitations)

```
1  class structureclass ():
2      scope = 5
3      height = 10
4      def formulacalculate (CUlate):
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6          return CUlate.Measure
7  class structureclass2():
8      scope = 7
9      height = 13
10     def formulacalculate2 (CUlate2):
11         CUlate2.Measure = 3.14*(CUlate2.scope*CUlate2.s
12         return CUlate2.Measure
13 CUlate = structureclass()
14 CUlate2 = structureclass2()
15
16 print("answerCUlate is "+ str(CUlate.formulacalculate()
17 print("answerCUlate2 is "+ str(CUlate2.formulacalculate
```

Edit this code

line that just executed
next line to execute

<< First | < Prev | Next > | Last >>

Done running (14 steps)

Customize visualization

Print output (drag lower right corner to resize)

```
answerCUlate is 785.0
answerCUlate2 is 1538.6000000000001
```

Frames Objects

Global frame
- structureclass
- structureclass2
- CUlate
- CUlate2

structureclass class

formulacalculate	function formulacalculate(CUlate)
height	10
scope	5

structureclass2 class

formulacalculate2	function formulacalculate2(CUlate2)
height	13
scope	7

structureclass instance

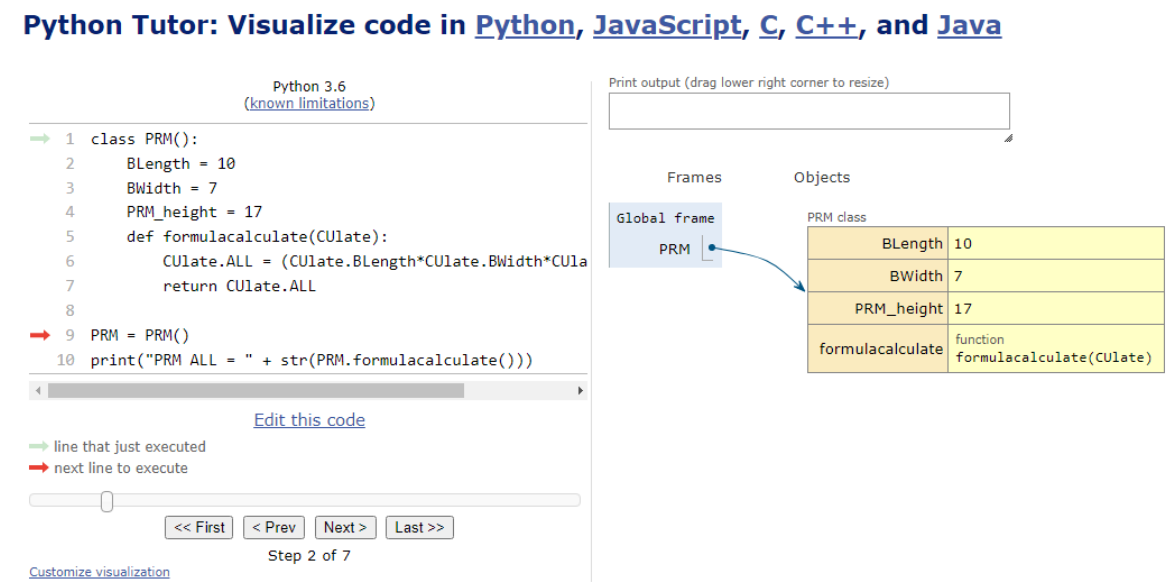
Measure	785.0

structureclass2 instance

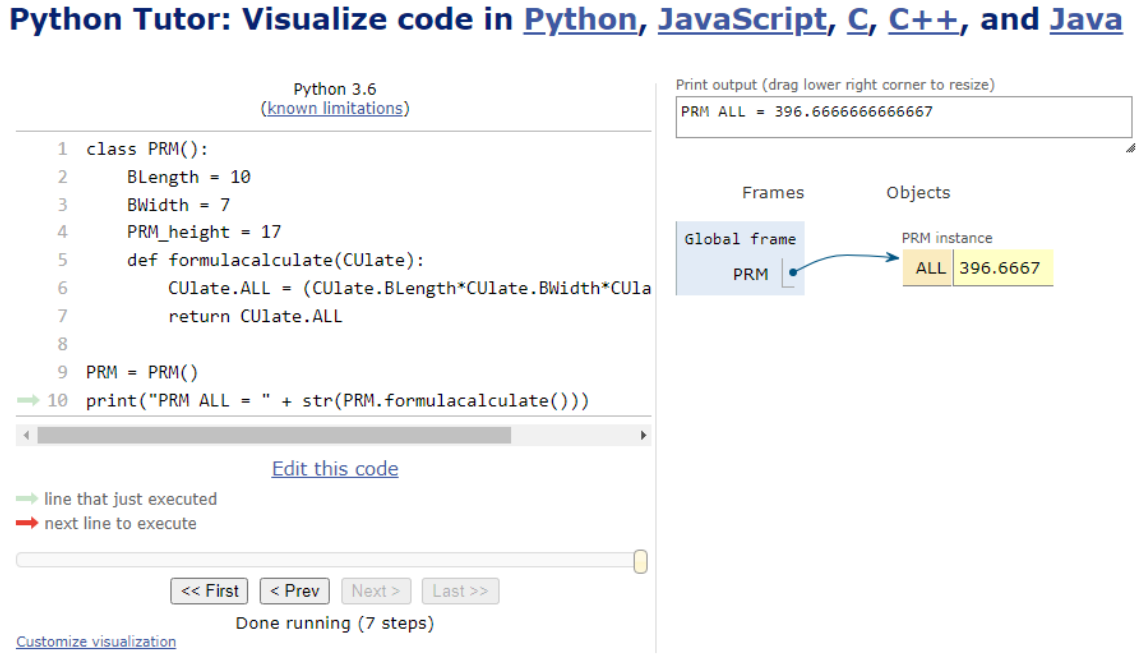
Measure	1538.6

Lab-4.2

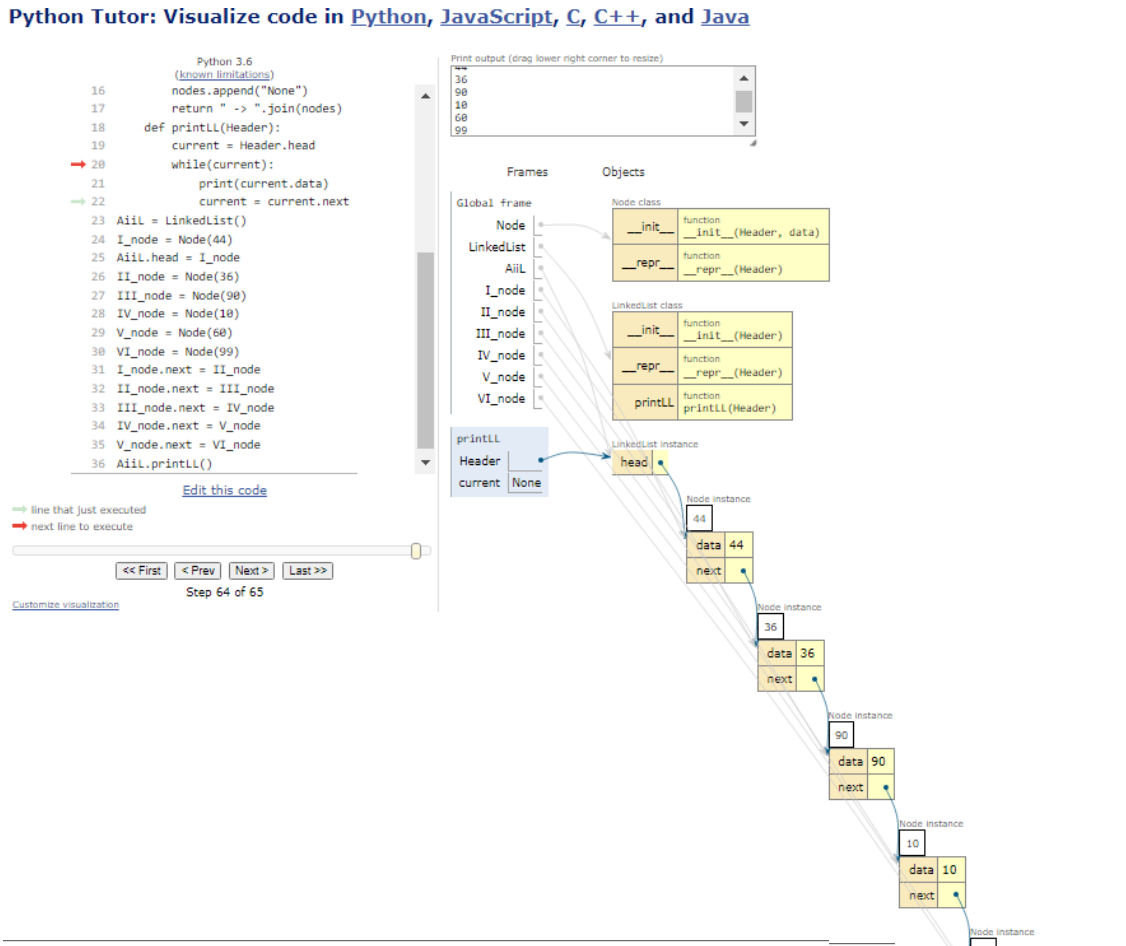
ทำการประกาศค่าตัวแปรต่างๆ และใส่ค่านั้นๆ



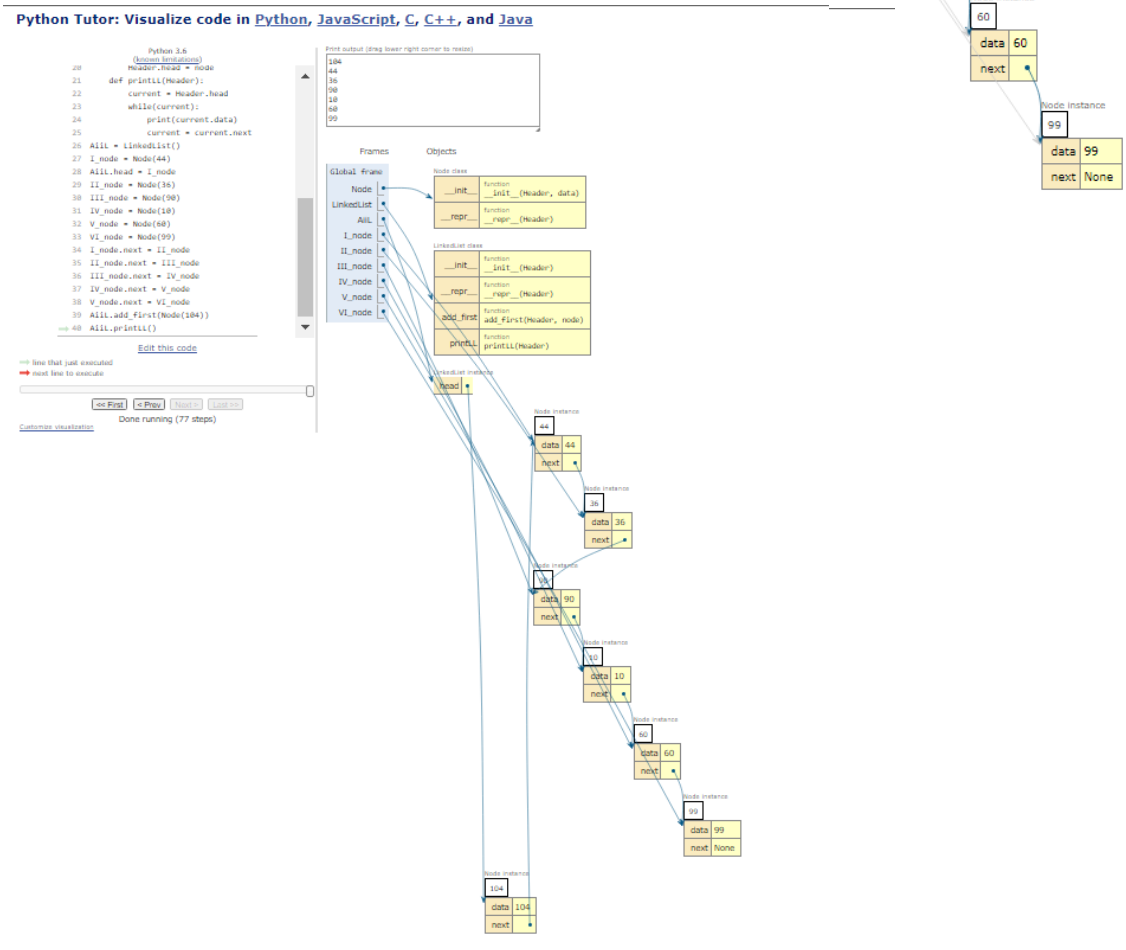
ผลลัพ



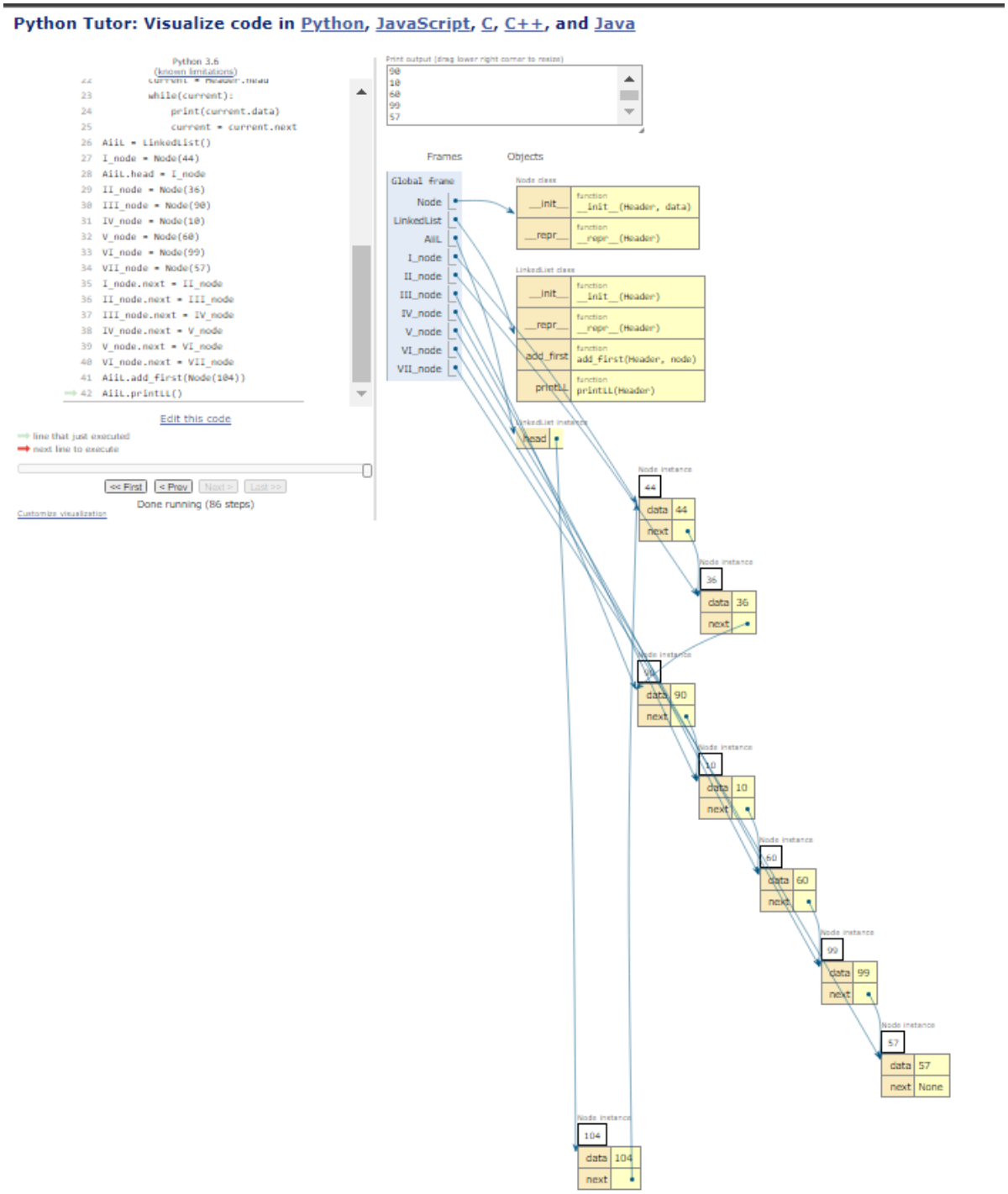
Lab-4.3.1


Python Tutor: Visualize code in Python, JavaScript, C, C++, and Java
Python 3.6
(known limitations)
16 nodes.append("None")
17 return " -> ".join(nodes)
18 def printLL(Header):
19 current = Header.head
20 while(current):
21 print(current.data)
22 current = current.next
23 AiiL = LinkedList()
24 I_node = Node(44)
25 AiiL.head = I_node
26 II_node = Node(36)
27 III_node = Node(90)
28 IV_node = Node(10)
29 V_node = Node(60)
30 VI_node = Node(99)
31 I_node.next = II_node
32 II_node.next = III_node
33 III_node.next = IV_node
34 IV_node.next = V_node
35 V_node.next = VI_node
36 AiiL.printLL()
Edit this code
line that just executed
next line to execute
<< First
< Prev
Next >
Last >>
Step 64 of 65
Customize visualization
Print output (drag lower right corner to resize)
36
90
10
60
99
Frames
Objects
Global frame
Node
LinkedList
AiiL
I_node
II_node
III_node
IV_node
V_node
VI_node
printLL
Header
current
None
Node class
__init__
function __init__(Header, data)
__repr__
function __repr__(Header)
LinkedList class
__init__
function __init__(Header)
__repr__
function __repr__(Header)
printLL
function printLL(Header)
LinkedList instance
head
Node instance
44
data 44
next
36
data 36
next
90
data 90
next
10
data 10
next
60
data 60
next
99
data 99
next None

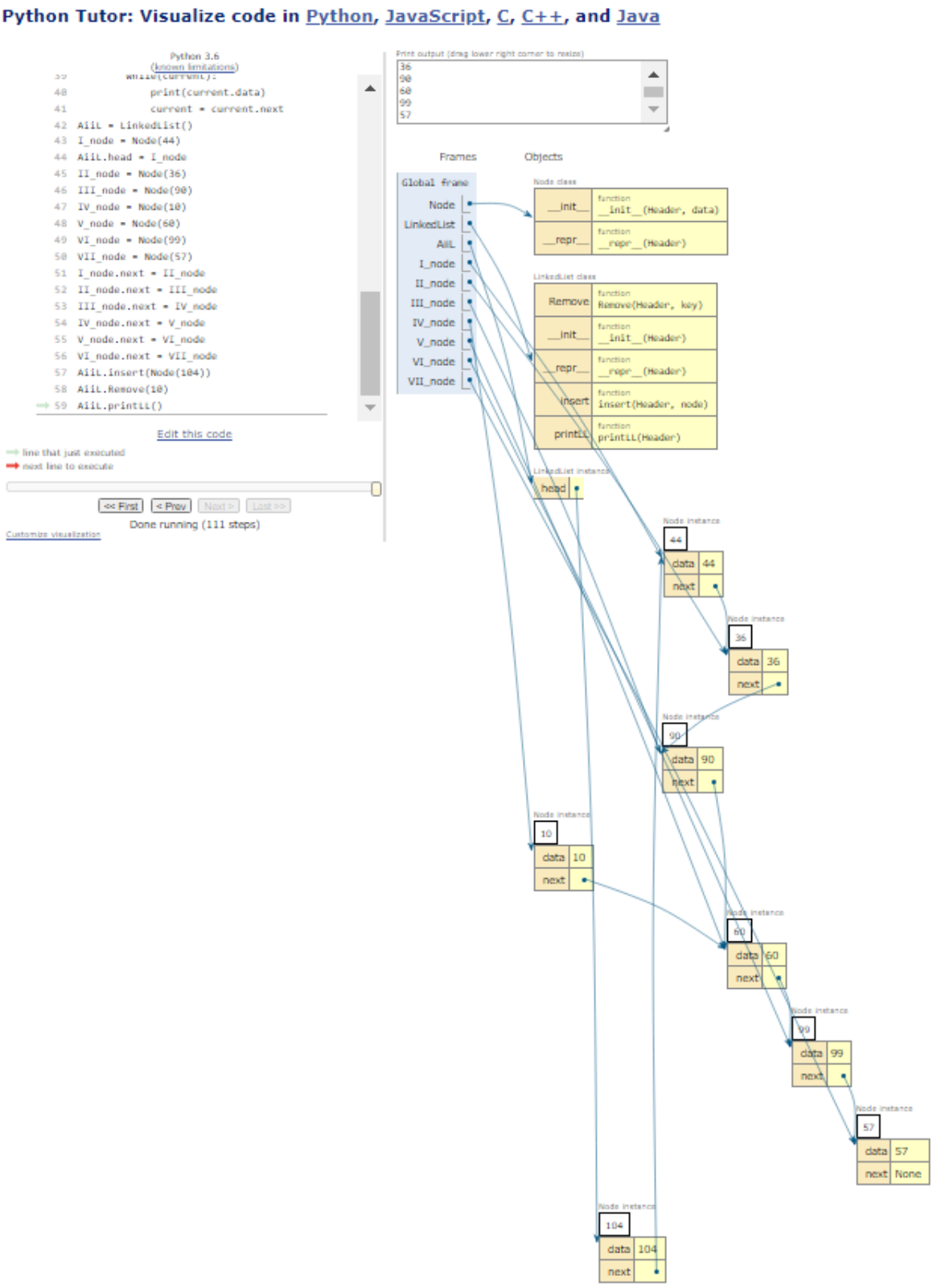
4.3.2


Python Tutor: Visualize code in Python, JavaScript, C, C++, and Java
Python 3.6
(known limitations)
Header.head = node
def printLL(Header):
current = Header.head
while(current):
print(current.data)
current = current.next
AiiL = LinkedList()
I_node = Node(44)
AiiL.head = I_node
II_node = Node(36)
III_node = Node(90)
IV_node = Node(10)
V_node = Node(60)
VI_node = Node(99)
I_node.next = II_node
II_node.next = III_node
III_node.next = IV_node
IV_node.next = V_node
V_node.next = VI_node
AiiL.add_first(Node(104))
AiiL.printLL()
Edit this code
line that just executed
next line to execute
<< First
< Prev
Next >
Last >>
Done running (77 steps)
Customize visualization
Print output (drag lower right corner to resize)
104
44
36
90
10
60
99
Frames
Objects
Global frame
Node
LinkedList
AiiL
I_node
II_node
III_node
IV_node
V_node
VI_node
Node class
__init__
function __init__(Header, data)
__repr__
function __repr__(Header)
LinkedList class
__init__
function __init__(Header)
__repr__
function __repr__(Header)
add_first
function add_first(Header, node)
printLL
function printLL(Header)
LinkedList instance
head
Node instance
44
data 44
next
36
data 36
next
90
data 90
next
10
data 10
next
60
data 60
next
99
data 99
next None
104
data 104
next

Lab4.3.3


Python Tutor: Visualize code in Python, JavaScript, C, C++, and Java
Python 3.6
(known limitations)
while(current):
print(current.data)
current = current.next
AllL = LinkedList()
I_node = Node(44)
AllL.head = I_node
II_node = Node(36)
III_node = Node(90)
IV_node = Node(10)
V_node = Node(60)
VI_node = Node(99)
VII_node = Node(57)
I_node.next = II_node
II_node.next = III_node
III_node.next = IV_node
IV_node.next = V_node
V_node.next = VI_node
VI_node.next = VII_node
AllL.add_first(Node(104))
AllL.printLL()
Edit this code
line that just executed
next line to execute
<< First
< Prev
Next >
Last >>
Done running (86 steps)
Customize visualization
Print output (drag lower right corner to resize)
90
10
60
99
57
Frames
Objects
Global frame
Node
LinkedList
AllL
I_node
II_node
III_node
IV_node
V_node
VI_node
VII_node
Node class
__init__
function __init__(Header, data)
__repr__
function __repr__(Header)
LinkedList class
__init__
function __init__(Header)
__repr__
function __repr__(Header)
add_first
function add_first(Header, node)
printLL
function printLL(Header)
LinkedList instance
head
Node instance
44
data 44
next
Node instance
36
data 36
next
Node instance
90
data 90
next
Node instance
10
data 10
next
Node instance
60
data 60
next
Node instance
99
data 99
next
Node instance
57
data 57
next None
Node instance
104
data 104
next

Lab4.3.4


Python Tutor: Visualize code in Python, JavaScript, C, C++, and Java
Python 3.6
(known limitations)
print(current.data)
current = current.next
AlIL = LinkedList()
I_node = Node(44)
AlIL.head = I_node
II_node = Node(36)
III_node = Node(90)
IV_node = Node(10)
V_node = Node(60)
VI_node = Node(99)
VII_node = Node(57)
I_node.next = II_node
II_node.next = III_node
III_node.next = IV_node
IV_node.next = V_node
V_node.next = VI_node
VI_node.next = VII_node
AlIL.insert(Node(104))
AlIL.Remove(10)
AlIL.printll()
Edit this code
line that just executed
next line to execute
<< First
< Prev
Next >
Last >>
Done running (111 steps)
Customize visualization
Print output (drag lower right corner to resize)
36
90
60
99
57
Frames
Objects
Global frame
Node
LinkedList
AlIL
I_node
II_node
III_node
IV_node
V_node
VI_node
VII_node
Node class
__init__
function __init__(Header, data)
__repr__
function __repr__(Header)
LinkedList class
Remove
function Remove(Header, key)
__init__
function __init__(Header)
__repr__
function __repr__(Header)
insert
function insert(Header, node)
printll
function printll(Header)
LinkedList instance
head
Node instance
44
data 44
next
Node instance
36
data 36
next
Node instance
90
data 90
next
Node instance
10
data 10
next
Node instance
60
data 60
next
Node instance
99
data 99
next
Node instance
57
data 57
next None
Node instance
104
data 104
next