

Introduction to Programming

2017 Fall Midterm

범위는 Lecture 1(Python Basic), Lecture 2(Conditions, while-loop), Lecture 3(Variables, Types), Lecture 4(Functions), Lecture 5(Local/Global Variables, Graphical Objects) 입니다.

Python Basic

다음 단어에 대한 간단한 설명을 써라.

1	Program
2	Instructions
3	Debugging
4	Syntax Error
5	Runtime Error
6	Semantic Error

Operations

다음 코드의 결과값을 예상하라.

1	<code>a = 3/2</code> <code>print(a)</code>
2	<code>a = 5/3*3</code> <code>print(a)</code>
3	<code>a = 5//3*3</code> <code>print(a)</code>
4	<code>a = 3*3**3</code> <code>print(a)</code>
5	<code>a = 5/(2//3)</code> <code>print(a)</code>

6	<pre>a = 3+6/2 print(a)</pre>
7	<pre>a = 3 == 2 print(a)</pre>
8	<pre>a = (100, 200) b = (100, 200) print(a == b)</pre>
9	<pre>a = (100, 200) b = (100, 200) print(a is b)</pre>
10	<pre>a = (100, 200) x = a y = a print(x is y)</pre>
11	<pre>a = 'str' print(type(a))</pre>
12	<pre>a = (1,2,3) print(type(a))</pre>
13	<pre>a = (1.23) print(type(a))</pre>
14	<pre>x = 7 y = "7" print(x == y)</pre>
15	<pre>x = 7 y = 7.0 print(x == y)</pre>
16	<pre>x = 7 y = 7.0 print(x == y and not y == 7)</pre>
17	<pre>x = True y = False print(x and y)</pre>
18	<pre>x = True y = False print(x or y)</pre>
19	<pre>x = True y = False print(x and not y)</pre>

20	<code>a = 3 + 6j</code> <code>print(type(a))</code>
21	<code>a = "Hello"</code> <code>b = " World"</code> <code>print(a + b)</code>
22	<code>a = "hi "</code> <code>print(a*3)</code>
23	<code>a = "hi "</code> <code>b = 12</code> <code>print(a + b)</code>
24	<code>a = 12</code> <code>b = 13</code> <code>print(a + b)</code>
25	<code>x = "quality"</code> <code>y = "quantity"</code> <code>print(x>y)</code>
26	<code>x = "quality"</code> <code>y = "quali"</code> <code>print(x>y)</code>

Tuple

다음 코드의 결과값을 예상하라

1	<code>a = (100, 200)</code> <code>print(a)</code>
2	<code>a = (100)</code> <code>print(type(a))</code>
3	<code>a = (100, 200, 300)</code> <code>print(a[1])</code>
4	<code>a = (100, 200, 300)</code> <code>a[1] = 0</code> <code>print(a)</code>
5	<code>a = (10, 20, 30, 40, 50)</code> <code>print(a[-1])</code>
6	<code>a = (10, 20, 30, 40, 50)</code> <code>print(a[5])</code>

7	<pre>a = (10, 3.5, 'xy') x, y, z = a print(y)</pre>
8	<pre>a = (10, 3.5, 'xy') x, y = a print(y)</pre>

If-statement

다음 코드의 결과값을 예상하라

1	<pre>b = False if b: print("Hi~") else: print("so sad...")</pre>
p	<pre>b = None if b: print("You got F") else: print("You got A+")</pre>
3	<pre>count = 0 if not count: print("not count") else: print("count")</pre>
4	<pre>A = 90 B = 80 C = 70 score = 85 if score > A: print("A") if score > B: print("B") if score > C: print("C")</pre>
5	<pre>A = 90 B = 80</pre>

	<pre> C = 70 score = 85 if score > A: print("A") elif score > B: print("B") elif score > C: print("C") </pre>
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For-loop

다음 코드의 결과값을 예상하라

1	<pre> for i in range(3): print(i) </pre>
p	<pre> for i in range(2, 5): print(i) </pre>
3	<pre> for i in range(3, 9, 2): print(i**2) </pre>
4	<pre> for i in range(5, -1, -2): print(i) </pre>
5	<pre> for i in range(5): print(i+3) i += 2 </pre>
6	<pre> for i in (1,5,9): print(i-1) </pre>

While-loop

다음 코드의 결과값을 예상하라

1	<pre> n = 3 while(n>1): print(n) n -= 1 </pre>
2	<pre> n = 3 while(n): print(n) </pre>

	n -= 1
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Function

다음 코드의 결과값을 예상하라

1	<pre>def f(s): print(s) f('hi')</pre>
2	<pre>def f(s): print('s') f('hi')</pre>
3	<pre>def f(s): print(s) print(f('hi'))</pre>
4	<pre>def g(t): m = t[0] for i in t: if i > m: m = i return m a = (0,1,2,3,6,5,4) print(g(a))</pre>
5	<pre>def f(a): if a == 0: return 1 return f(a-1) * a print(f(5))</pre>
6	<pre>def f(a, n): if n == 0: return (a) return (a, f(a, n-1)) print(f(3,3))</pre>

Global Variable

다음 코드의 결과값을 예상하라

1	<pre>a = 0 b = 0 def f(a): a = 3 b = 3 f(a) print(a) print(b)</pre>
2	<pre>a = 0 b = 0 def f(a): global b a = 3 b = 3 f(a) print(a) print(b)</pre>
3	<pre>a = 0 b = 0 def f(a): global a, b a = 3 b = 3 f(a) print(a) print(b)</pre>
4	<pre>a = 0 b = 3 def f(): global b b = a f() print(a) print(b)</pre>
5	<pre>x = True y = True z = 0 def set(): global z</pre>

	<pre>z += 1 return True x == y and set() print(z)</pre>
6	<pre>x = True y = False z = 0 def set(): global z z += 1 return True x == y and set() print(z)</pre>
7	<pre>x = True y = True z = 0 def set(): global z z += 1 return True x == y or set() print(z)</pre>
8	<pre>x = True y = False z = 0 def set(): global z z += 1 return True x == y or set() print(z)</pre>