

CSCA08 FALL 2015

WEEK 3 – MEMORY MODEL

Bo(Kenny) Zhao

University of Toronto Scarborough

September 22, 2015



CONTACT INFORMATION

- Bo(Kenny) Zhao
- bo.zhao@utsc.utoronto.ca
- Private message through Piazza
 - New post -> Post to individual -> Kenny
- Tutorial: TUT0016 Tuesday 9:00 – 10:00 HW215
- Practical: PRA005 Wednesday 16:00 – 17:00 BV471

KEY TOPICS IN CSCA08

- Memory Model(Tracing questions)
- Design Recipe
- Loops
- Class

MEMORY MODEL

• Example 1

1. $x = 7$
2. $y = 10$
3. $x = 8$
4. $x = y$
5. $y = 15$
6. $z = x + y$
7. `print(z)`
8. $x = \text{"Hello"}$
9. $y = 2$
- ~~10. $z = x + y$~~
11. $\text{print}(x * y)$

$w = (x * y)$
`print(w)`

MEMORY MODEL

- Example 2
 1. `def my_function(x):`
 2. `y = x+7`
 3. `print(y)`
 4. `return "Hello"`
 - 5.
 6. `x = 5`
 7. `y = my_function(x)`
 8. `print(y)`

MEMORY MODEL

• Example 3

1. def func_a():

2. x = 7

3. def func_b():

4. x = 7

5. return x

6. def func_c(x):

7. x = 7

8. def func_d(x):

9. return x

10. y = func_a()

11. print(y)

12. y = func_b()

13. print(y)

14. x = 10

15. y = func_c(x)

16. print(x, y)

17. y = func_d(x)

18. print(x, y)

MEMORY MODEL

• Example 4 (Homework)

1. `def func_a(x):`

2. `x = x + 7`

3. `print(x)`

4. `return x`

5. `def func_b(x):`

6. `x = x + func_a(x)`

7. `print(x)`

8. `return x`

9. `def func_c(x):`

10. `x = x + func_b(x)`

11. `print(x)`

12. `return x`

13. `y = func_c(3)`

14. `print(y)`