

TGIF

- AI is posted (declare your partnerships)
- Codelab this weekend
- 8-10 hours per week per course
- Lab handouts posted but not solutions
- No internet for me 11 a.m. today - Sunday morning

Functions

Getting textual input

- `raw_input` is a function that:
 - “prompts” the user to type something by printing the string you give it (if you give it one),
 - waits until the user hits the enter/return key,
 - returns a string containing whatever the user typed before hitting enter/return.
- So the value of a `raw_input` expression is what the user entered.
- Called “raw” because it’s untreated: nothing has been done to it.

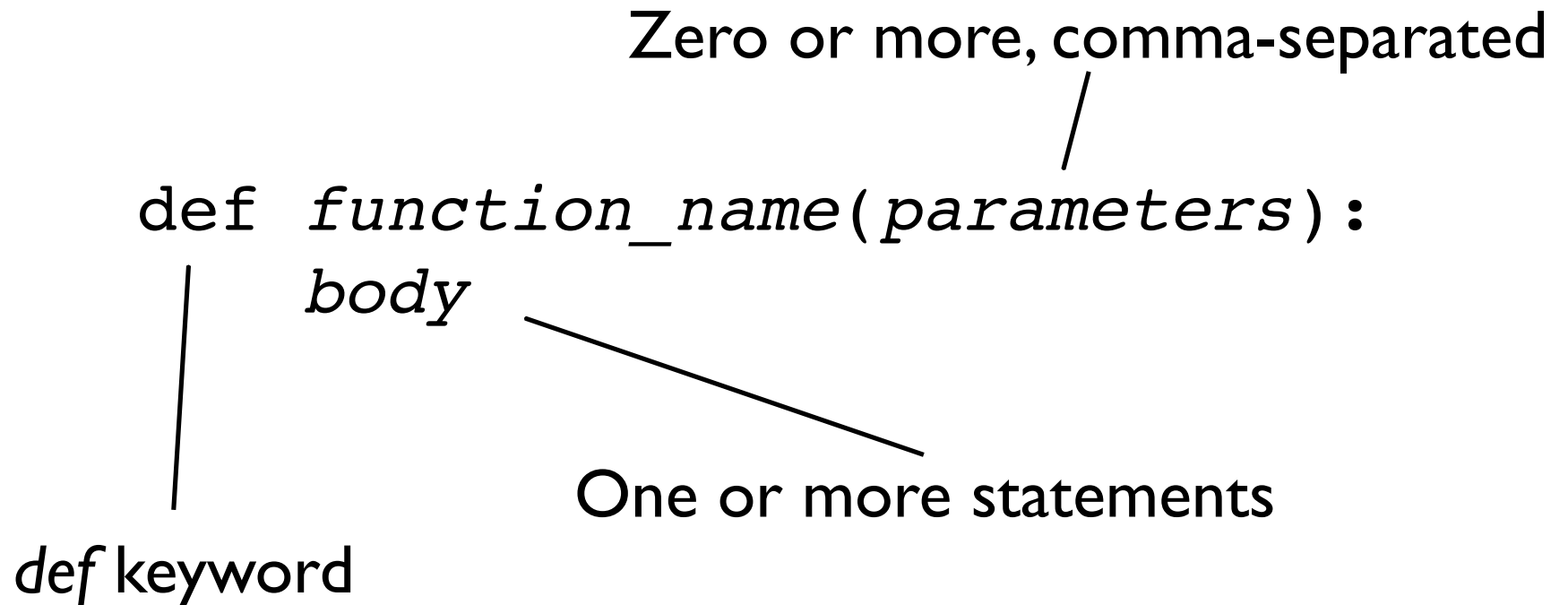
Function Definition

Zero or more, comma-separated

```
def function_name(parameters) :  
    body
```

def keyword

One or more statements



Function Call

Form: zero or more, comma-separated
/

function_name(arguments)

How it's executed:

1. Each argument is an expression. Evaluate these expressions, in order. (The value of each expression is a memory address.)
2. Store those memory addresses in the corresponding parameters.
3. Execute the body of the function.

Return Statement

Form:

`return expression`

How it's executed:

1. Evaluate the expression. (The value of the expression is a memory address.)
2. Exit the function, using that memory address as the value of the function call.

NB: The function ends *immediately*. Any remaining statements in it are not executed.

If there is no return?

- Then the function ends when there are no statements left to execute.
- The function *does* return a value: the special value `None`.

Return vs print

- Return says “get me out now, and send back this value to whoever called me.”
- It does not print anything. But the caller may decide to print the returned value.
- Print says “print this value now.” It does not stop the function.

When to use return vs print

- If we give you a specification that says which to do, follow that!
- When you have the freedom to choose, consider how the function will be used. Examples:
 - If you want to give the “caller” control over whether or not the result is printed, use return.
 - If you want to give the caller the option to use the result later, use return.