Function-Writing and Memory Diagram Practice

Please be ready to write on a piece of paper or tablet!

Announcements

- **CQ00: Memory Diagram** – take a photo/scan and submit it to Gradescope by 11:59pm
- **EX01: Tea Party** due **today** (Jan 21st)
- **Quiz 00** on Friday
  - Ways to prepare:
    - Quiz expectations on course site
    - LS questions
    - Practice problems in the slides
    - EX00 and EX01
    - Practice problems on the site
    - **Hybrid review session:** 6-7pm today (Jan 21st) in Sitterson 014 and online (link will be on the site)
      - Can't make it? Recording will be added to the site!

Function-Writing Practice

Write a function named **`get_initials`** that takes in two parameters, named **`first`** and **`last`**, that are expected to hold strings. The function should **`return`** a string containing the first character of **`first`** followed by the first character of **`last`**. This function models computing a person's initials from their first and last name. Be sure to explicitly type all parameter types and the return type.

Memory diagram (do NOT submit this for CQ00)

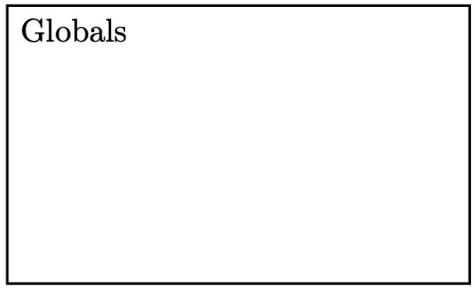
```python
"""An example of a function definition and call!"""

def get_initials(first: str, last: str) -> str:
    """Return initials, based on a first tand last name!"""
    return first[0] + last[0]

def say_hi(first: str) -> None:
    print("Hi, " + first + "!")

print(get_initials(first="Michael", last="Jordan"))
```

Memory diagram (Submit the completed memory diagram for CQ00!)

```
1  def total_feet(sparrows: int, rabbits: int) -> int:
2    """Returns the total number of feet among the woodland creatures"""
3    return bird_feet(birds=sparrows) + rabbit_feet(rabbits=rabbits)
4
5
6  def rabbit_feet(rabbits: int) -> int:
7    """Returns the total number of rabbit hindfeet and forefeet."""
8    return 4 * rabbits
9
10
11 def bird_feet(birds: int) -> int:
12   """Returns the total number of bird feet given a number of birds"""
13   return 2 * birds
14
15 print(total_feet(sparrows=3, rabbits=2))
```

Stack

Heap



Output

Weekly Tutoring + Office Hours

Office Hours (Sitterson Hall (SN) 008):

- Mondays–Fridays: 11am-5pm
- Sundays: 1-5pm

Tutoring (Fred Brooks (FB) 007):

- Mondays, Wednesdays, Thursdays: 5-7pm

Reminder: the following are due *tonight*:

- **CQ00**: Memory Diagram
- **EX01**: Tea Party