

QUIZ 9

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This quiz will not count towards your grade. It exists to simply gauge your understanding. You will have 5 minutes to complete this quiz. In that timespan, your goal is to complete the second question and at least attempt the first.

01. EXCEPTIONS

Complete the following function `riki_tiki_tavi` so that it outputs `riki`, `tiki`, and `tavi` in that order. Remember that mutable default arguments maintain state across function calls.

```
def riki_tiki_tavi(n, a=(), lst=['riki', 'tiki', 'tavi']):
    """
    >>> riki_tiki_tavi(2)
    riki
    tiki
    >>> riki_tiki_tavi(2) # starts from tavi, where it left off
    tavi
    riki
    """
    if n > 0:
        lst.append(lst.pop(0))
        print(lst[-1])
        try:
            a[1000] # any index will work
        except IndexError:
            riki_tiki_tavi(n-1, {})
        except KeyError:
            riki_tiki_tavi(n-1, lambda x:x)
        except TypeError:
            riki_tiki_tavi(n-1)
```

UNOFFICIAL QUIZ *for* PRACTICE SOLUTIONS**02. A HAMBURGER INTERPRETER**

A valid hamburger is any set of pairs representing a line of scheme code, where the statement is properly wrapped with parentheses. Each parenthese is a bun, and all closing buns must match an opening bun. **Hint:** Use `buns.pop` and `buns.append`.

```
def valid_hamburger(pair):
    """
    >>> valid_hamburger(Pair('(', Pair('(', Pair('quote', Pair('o',
    ... Pair(')', Pair(')', nil)))))) # (('o))
    True
    >>> valid_hamburger(Pair('(', Pair('(', nil))) # ((
    False
    >>> valid_hamburger(nil)
    True
    """
    buns = []

    while pair:
        if pair.first == '(':
            buns.append('(')

        if pair.first == ')':
            if not buns or buns.pop() != '(':
                return False

        pair = pair.second

    return len(buns) == 0 # check if any starting buns are left hanging
```