Announcements & Logistics

- CS134 Scheduled Final: **Friday, May 17, 9:30 AM**
  - Room: **TCL 123**
- CS134 **Review Session** before Final:
  - Wednesday May 15, **4.30-5.30 pm**
  - Room: Wege (TCL 123)
- Bill Help hours on Thurs May 16: **2.30 - 4.30 pm (TCL 217)**
- **Practice Finals** are posted, along with solutions
  - Attempt thoroughly before checking solution key
  - If you have questions, bring it review session

Do You Have Any Questions?
CSI34 (Review) : Jeopardy
Rules of the Game

• The team in control of the board chooses a category and point value
  • Higher-point-value questions are more challenging
• ALL teams start working on the solution and when a team is done, a team member raises a hand holding their written solution
• I will begin counting and other teams may raise their solution before the count reaches ‘5’
  • All answers must be written down on a piece of paper
  • Once a solution is raised, it is final!
• All teams that answered correctly earn points
• The first team to raise their hand that had a correct answer gets control of the board
• All teams that answered incorrectly lose points
<table>
<thead>
<tr>
<th>Short &amp; Sweet</th>
<th>Predict the Output</th>
<th>OOP</th>
<th>Loops and Recursion</th>
<th>Potpourri</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>
Short & Sweet for 2 Points

This Python type is most appropriate to store unordered values but it does not store duplicates.

What is ....?
Short & Sweet for 3 Points

This expression from below DOES NOT give a TypeError.

A.  \{1: 'o'} + \{2: 'h'}
B.  len(777777)
C.  3 in range(10)

What is ....?
Short & Sweet for 5 Points

This is a one-line Python expression that converts 'a,b,c,d,e,f' to 'abcdef'.

What is ....?
Short & Sweet for 7 Points

Given a list \( L \) of single-character digit strings, this is a one-line expression whose value is the integer that corresponds to concatenating the digits in reverse order, e.g.,
- if \( L \) is the list [3, 4, 5], the code should compute 543
- if \( L \) is the list [5, 3, 7, 2], the code should compute 2735

What is ...?
Predict the Output for 2 Points

This is the output printed by the following code:

```
print(print("hello"))
```

What is ....?
Predict the Output for 3 Points

This is the output printed by the following code:

```python
x, y = 3, 8
def f():
    x, y = 6, 7
f()
print(x, y)
```

What is ....?
Predict the Output for 5 Points

This is the output printed by the following code:

```python
t = ['5', '12', '3', '007']
prompt(sorted(t, key=int))
```

What is ....?
This is the output printed by the following code:

d = {1: {2: 3}, 4: {5: 6}}
s = 0
for k1 in d:
    for k2 in d[k1]:
        s += k1 + d[k1][k2]
print(s)

What is ....?
OOP for 2 Points

This is the special method called when an instance of a class is created.

What is ....?
OOP for 3 Points

This is the special expression that is used instead of self when invoking a method of a parent class.

What is ....?
OOP for 5 Points

This is the attribute of Sample class that is not inherited by any of its subclass.

class Sample:
    def __init__(self, val1, val2, val3):
        self.a = val1
        self._b = val2
        self.__c = val3

What is ....?
This is printed when the following code is run:

class Test:
    def __init__(self):
        print(self)

    def __str__(self):
        return "hello"

print(Test())

What is ....?
Loops and Recursion for 2 Points

This is the Big O Complexity of the following recursive function.

```python
def halves(n):
    if n > 0:
        print(n)
        halves(n//2)
```

What is ....?
Loops and Recursion for 3 Points

This is printed when we run:

```python
for i in range(2):
    for j in range(i):
        print(i, j)
```

What is ....?
Loops and Recursion for 5 Points

This shape is drawn by the following recursion:

def draw(len, sides):
    if sides > 0:
        fd(len); lt(90)
        draw(len, sides-1)

draw(10, 4)

What is ....?
Loops and Recursion for 7 Points

What is the iterative function that is equivalent to this recursive function:

```python
def mystery(num_lst):
    '''Assume num_lst is a list of numbers'''
    if len(num_lst) < 1:
        return 0
    else:
        return num_lst[0] + mystery(num_lst[1:])
```

What is ....?
Potpourri for 2 Points

This is the name of the criterion for a data type to be a key in a dictionary

What is ....?
Potpourri for 3 Points

This is the Big O time complexity of an algorithm that compares each number in the list of numbers to every other number in the list (using a nested for loop) to determine if any pair adds up to a given target value.

What is ....?
Potpourri for 5 Points

This is printed by the following code:

```python
def optional(word, num=3):
    return word * num

if __name__ == "__main__":
    print(optional("a") + optional("z", 2))
```

What is ....?
This is the value of nums after this code is run:

```python
nums = [1, 2, 3]
new = nums
new = new.append(4)
nums.append(new)
```

What is ....?