Michael Bullock
Python on AWS
Subject: Loops

Lab cake 1: Looping through Athletes **@channel**

Objective: Practice using loops to iterate through a list and display information.
Task: Write a Python program that uses a list of four U.S. women athletes who have competed in the 400 meters at the Olympics. Your program should do the following:

1. Create a list called `athletes` with the following names:
    - Allyson Felix
    - Sanya Richards-Ross
    - Shaunae Miller-Uibo
    - Phyllis Francis
2. Use a `for` loop to display each athlete's name along with the lap number they completed. The output should be in the following format:

```
Lap 1: Allyson Felix has completed their lap!
Lap 2: Sanya Richards-Ross has completed their lap!
Lap 3: Shaunae Miller-Uibo has completed their lap!
Lap 4: Phyllis Francis has completed their lap!
```

Requirements:

- Do not use the `enumerate()` function.
- Use a counter variable to keep track of the lap number.

Bonus Challenge:

- Modify your code to display a message at the end that says: "All athletes have completed their laps!"

Submission
Please submit your code in a file named `athlete_lap_assignment.py` and upload it to gihub. Make sure to test your code to ensure it produces the correct output.

athletes_lap_assignment.py × reverse_list_assignment.py

athletes_lap_assignment.py

```python
'''
Michael Bullock
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Description: Write a Python program that uses a list of four U.S. women athletes
who have competed in the 400 meters at the Olympics.
Your program should do the following:'''

# Create a list of athletes with the following respective names
athletes  = ["Allyson Felix", "Sanya Richards-Ross", "Shaune Miller-Uibo", "Phyllis Francis"]

# Create a for loop to display each athlete's name along with the lap number the completed.
for index in range(len(athletes)):
    print(f"Lap {index + 1}: {athletes[index]} has completed their lap!")

# Print status message outside of for loop
print("All athletes have completed their laps!")
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: bash

```
Michaels-iMac:py_projects michaelbullock$ python3 reverse_list_assignment.py
['television', 'cutting mat', 'scissor', 'sewing machine']
The list has been successfully reversed!
```

Lab cake 2: Reversing a List @channel

Objective: Practice reversing a list and transferring its elements into a new list using loops.

Task: Write a Python program that works with the list called `laura_things` containing the following items:

- "sewing machine"
- "scissor"
- "cutting mat"
- "television"

Your program should do the following:

1. Create a list called `laura_things` with the items listed above.
2. Reverse the order of the items in `laura_things`.
3. Transfer each item from the reversed list into a new list called `reversed_things`.
4. Print out the new list `reversed_things` to show that it contains the items in reverse order.

Requirements:

- You must reverse the list using slicing or a loop (do not use Python's built-in reverse methods like `reverse()`).
- The final output should look like this:
- ['television', 'cutting mat', 'scissor', 'sewing machine']

Bonus Challenge:

- After reversing the list and creating `reversed_things`, print a message that says: "The list has been successfully reversed!"

Submission