Introduction to Python

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**Homework Exercises: For Loops**

1. Given a list of cities = ["New York”, “London”, “Paris”, “Tokyo”, “Shanghai”], write a for loop to print the number of characters in each city’s name.

**for city in cities:**

**print(len(city))**

1. Given a list of cities = ["New York”, “London”, “Paris”, “Tokyo”, “Shanghai”], and a sublist travel = [“Tokyo”, “Shanghai”], write a loop to count how many elements in cities are also in travel (Hint: you will first have to create a variable to store a number)

**count = 0**

**for city in cities:**

**if city in travel:**

**count += 1**

**print("Number of cities also in travel list:", count)**

1. What will the following code print?

students = ["Alice", "Bob", "Charlie"]

grades = [[88, 92, 85], [75, 78, 72], [90, 95, 93]]

for i in range(len(students)):

student = students[i]

score\_list = grades[i]

total = 0

for score in score\_list:

total += score

average = total / len(score\_list)

print(f"{student}'s average grade is {average:.2f}")

**Alice's average grade is 88.33**

**Bob's average grade is 75.00**

**Charlie's average grade is 92.67**