# Python Code Explanation

## Q1: User Input and Greeting

The code asks the user to enter their name, age, and country using the input function. These values are stored in the variables name, age, and country respectively. It then displays a greeting message that includes the user’s name, age, and country by using the print function.

name = input("Enter your name: ")  
age = input("Enter your age: ")  
country = input("Enter your country: ")  
print("Hello", name, "You are", age, "years old, from", country)

## Q2: List Operations (Sum and Average)

A list of numbers is created and assigned to the variable numbers. The sum of the list is calculated using the sum function and stored in the variable total\_sum. The average is calculated by dividing the total\_sum by the length of the list (using len(numbers)) and stored in average. The code prints the list of numbers, the total sum of the numbers, and the average using the print function.

numbers = [12, 8, 15, 7, 10]  
total\_sum = sum(numbers)  
average = total\_sum / len(numbers)  
print('List of the number: ', numbers)  
print("Sum of numbers:", total\_sum)  
print("Average of numbers:", average)

## Q3: 3x3 Matrix

A 3x3 matrix (list of lists) is created and assigned to the variable matrix. Each row of the matrix is printed using a for loop that iterates through each list within the matrix.

matrix = [  
 [1, 2, 3],  
 [4, 5, 6],  
 [7, 8, 9]  
]  
for row in matrix:  
 print(row)

## Q4: 2x2 Matrix

A 2x2 matrix is created and assigned to the variable matrix2. Each row of the 2x2 matrix is printed using a for loop. Specific elements of the matrix are accessed and printed: matrix2[0][0] accesses the top-left element and matrix2[1][1] accesses the bottom-right element.

matrix2 = [[1, 2], [3, 4]]  
for row in matrix2:  
 print(row)  
print("Top left", matrix2[0][0])  
print("Bottom right", matrix2[1][1])