

ASSIGNMENT 1

Note:All given questions are compulsory .

****Question 1:****

Write a Python program that prints all the numbers from 1 to 100, but for multiples of 3, print "Fizz" instead of the number, and for multiples of 5, print "Buzz." For numbers which are multiples of both 3 and 5, print "FizzBuzz."

Sample Output:

```
1
2
Fizz
4
Buzz
Fizz
7
8
Fizz
Buzz
13
14
FizzBuzz
```

****Question 2:****

Write a Python program that takes a list of numbers and returns a new list containing only the even numbers.

Sample Output:

```
Enter a list of numbers separated by spaces: 1 2 3 4 5 6 7 8 9
Even numbers in the list: [2, 4, 6, 8]
```

****Question 3:****

Write a Python program to find the factorial of a given number using a loop.

Sample Output:

Enter a number: 5
Factorial of 5 is 120

****Question 4:****

Write a Python program that prints all the prime number in list.

****Question 5:****

Write a Python program to reverse a list without using built-in functions or slicing.

****Question 6:****

Write a Python program that finds and prints all the prime numbers between 1 and 100.

****Question 7:****

Write a Python program to remove all occurrences of a specified element from a list.

Sample Output:

Original list: [1, 2, 2, 3, 4, 2, 5]
Enter the element to remove: 2
List after removing all occurrences of 2: [1, 3, 4, 5]

****Question 8:****

Write a Python program that calculates the sum of the squares of all the even numbers between 1 and 50.

****Question 9:****

Write a Python program that takes two lists and returns a new list containing only the common elements between them.

****Question 10:****

Write a Python program to find the second largest number in a list of integers.

****Question 11:****

Write a Python program that finds the intersection of two lists (i.e., elements that are common in both lists) and prints the result.

Sample Output:

```
list1: [1, 2, 3, 4, 5]
```

```
list2:[ 3, 4, 5, 6, 7]
```

```
Intersection of the two lists: [3, 4, 5]
```

****Question 12:****

Write a Python program that takes a list of numbers and rearranges it so that all the even numbers come before the odd numbers while preserving the order of even and odd numbers.

Sample Output:

```
Given list:[ 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

```
Rearranged list with even numbers first: [2, 4, 6, 8, 1, 3, 5, 7, 9]
```