

Assignment 01

Python For AI



Question 1:

Write a Python program to determine the largest among three numbers entered by the user.

Question 2:

Write a Python program to check if a given year is a leap year.

Hints –

1. Check if the year is divisible by 4
2. Check if the year is divisible by 100, but not divisible by 400
3. If the year satisfies either of the above conditions, it's a leap year

Question 3:

Write a Python program to print the following pattern:

Unset

```
1
22
333
4444
55555
```

Question 4:

Write a Python program to print the following pattern:

Unset

```
*
**
***
****
*****
```

Question 5:

Write a Python program to print the following pattern:

Unset

```
  *
 **
***
****
*****
```

Question 6:

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

Question 7:

Write a Python program to find the sum of all prime numbers up to n.

Question 8:

Write a Python program to print the Fibonacci sequence up to n terms. The Fibonacci series is a sequence of numbers where each number is the sum of the two preceding ones, usually starting with 0 and 1.

i.e

Unset

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, ...

Question 9:

Write a Python program to print the following pattern:

Unset

```
*
***
*****
*****
*****
```

Question 10:

Write a Python program to print the following pattern:

Unset

```
A
BBB
CCCCC
DDDDDD
EEEEEEEE
```