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**NPTEL** (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » **The Joy of Computing using Python (course)**

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<input checked="" type="radio"/> <b>Programming Assignment - 1: Duplicate</b> (/noc20_cs83/progassignment? name=292)
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## Programming Assignment - 1: Duplicate

**Due on 2020-10-29, 23:59 IST**

With a given list **L**, write a program to print this list **L** after removing all duplicate values with original order reserved.

**Example:**

If the input list is

12 24 35 24 88 120 155 88 120 155

Then the output should be

12 24 35 88 120 155

**Explanation:**

Third, seventh and ninth element of the list **L** has been removed because it was already present.

**Input Format:**

In one line take the elements of the list **L** with each element separated by a space.

**Output Format:**

Print the elements of the modified list in one line with each element separated by a space.

**Example:**

**Input:**

12 24 35 24

**Output:**

12 24 35

Your last recorded submission was on 2020-10-20, 15:35 IST

Select the Language for this assignment. Python3 ▾

```
1 def remove_dup(duplicate):
2     final_list = []
3     for num in duplicate:
4         if num not in final_list:
5             final_list.append(num)
6         print(" ".join(str(x) for x in final_list))
7
8 list1 = [int(item) for item in input().split()]
9 remove_dup(list1)
```

You may submit any number of times before the due date. The final submission will be considered for grading.

This assignment has **Public Test cases**. Please click on "Compile & Run" button to see the status of Public test cases. Assignment will be evaluated only after submitting using Submit button below. If you only save as or compile and run the Program , your assignment will not be graded and you will not see your score after the deadline.

Save as Draft	Compile & Run	Submit	Reset
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Private Test cases used for Evaluation	Status
Test Case 1	Passed
Test Case 2	Passed
Test Case 3	Passed
Test Case 4	Passed



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## Programming Assignment - 2: The power of 2

Due on 2020-10-29, 23:59 IST

Write a program to find whether a given number is a power of 2 or not.

Input format:

The first line of the input contains the number n for which you have to find whether it is a power of 2 or not.

Output Format:

Print 'YES' or 'NO' accordingly without quotes.

Example:

Input:

32

Output:

YES

Input:

26

Output:

NO

Explanation:

In the first example, 32 is actually so the answer is YES.

The second number is not a power of 2 hence the answer is NO.

Your last recorded submission was on 2020-10-20, 15:43 IST

Select the Language for this assignment. Python3 ▾

```
1 import math
2
3 n = int(input())
4
5 def Log2(x):
6     return (math.log10(x) / math.log10(2))
7
8 if(math.ceil(Log2(n)) == math.floor(Log2(n))):
9     print("YES")
10 else:
11     print("NO")
```

You may submit any number of times before the due date. The final submission will be considered for grading.

This assignment has Public Test cases. Please click on "Compile & Run" button to see the status of Public test cases. Assignment will be evaluated only after submitting using Submit button below. If you only save as or compile and run the Program , your assignment will not be graded and you will not see your score after the deadline.

Save as Draft

Compile & Run

Submit

Reset

Private Test cases used for Evaluation

Status

Test Case 1

Passed

Test Case 2

Passed

Test Case 3

Passed



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## Programming Assignment 3: Lower Triangular Matrix

Due on 2020-10-29, 23:59 IST

A lower triangular matrix is a square matrix (where the number of rows and columns are equal) where all the elements above the diagonal are zero. For example, the following is a lower triangular matrix with the number of rows and columns equal to 3.

```
1 0 0
4 5 0
7 8 9
```

Write a program to convert a square matrix into a lower triangular matrix.

Input Format:

The first line of the input contains a number n which represents the number of rows and the number of columns. From the second line, take n lines input with each line containing n elements with each element separated by a space.

Output format:

Print the elements of the matrix with each row in a new line and each element separated by a space.

Example 1:

Input:

```
3
1 2 3
4 5 6
7 8 9
```

Output:

```
1 0 0
4 5 0
7 8 9
```

Example 2:

Input:

```
4
12 2 5 6
10 11 4 1
32 1 4 10
1 2 10 9
```

Output:

```
12 0 0 0
10 11 0 0
32 1 4 0
1 2 10 9
```

Explanation:

In both the examples, elements which are above the diagonal are zero.

NOTE: There should not be any extra space after the elements of the last column and no extra newline after the last row of the matrix.

Your last recorded submission was on 2020-10-20, 15:46 IST

Select the Language for this assignment. Python3 ▾

```
1 n=int(input())
2 l=[]
3
4 for i in range(n):
5     for j in range(1):
6         temp=[int(g) for g in input().split()]
7         l.append(temp)
8
9
10 for i in range(n):
11     for j in range(n):
12         if i<j:
13             if j==n-1:
14                 print(0,end=" ")
15             else:
16                 print(0,end=" ")
17         else:
18             if j==n-1:
19                 print(l[i][j],end=" ")
20             else:
21                 print(l[i][j],end=" ")
22
23 if(i!=n-1):
24     print()
```

You may submit any number of times before the due date. The final submission will be considered for grading.

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Status

- ☐ Quiz : Assignment 6  
(assessment?name=298)
- ☐ Week 6 Feedback Form : The  
Joy of Computing using Python  
(unit?unit=124&lesson=142)

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Test Case 1

Passed

Test Case 2

Passed

Test Case 3

Passed