

# ED5340:Data Science: Theory and practice

[Dashboard](#) / [My courses](#) / [ED5340:JAN-MAY 2024](#) / [LAB - 2 : Conditional Statements & Lists](#) / [Lab 2 : Conditional Statements & Lists](#)

## Lab 2 : Conditional Statements & Lists

✓ Done

**Opened:** Wednesday, 31 January 2024, 1:30 PM

**Due:** Wednesday, 31 January 2024, 11:59 PM

1. Write a program to print numbers divisible by both 7 and 8. Numbers between 1 and 1000.

[Numbers like 56, which are both divisible by 7 and 8]

- a. Using continue statement
- b. Using the pass statement

2. Number 34567222541147 has been given. Print the addition of all even digits and the addition of all odd digits.

[Sample input = 156893, Sample Output: sum\_even = 14 , sum\_odd = 18]

3. Describe conditional expression. Write a program to print the maximum and minimum numbers from a list using conditional expression. Use the max () and min () functions to verify your output.

4. Pascal's Triangle : Print the following pattern for the given N number of rows.

Sample Example:

Pattern for N = 8

```

      1
     1 1
    1 2 1
   1 3 3 1
  1 4 6 4 1
 1 5 10 10 5 1
1 6 15 20 15 6 1
1 7 21 35 35 21 7 1

```

5. A palindrome sentence is a phrase or sentence that reads the same forward as it does backward, ignoring spaces, punctuation, and capitalization.

A) Take a number as input, determine if it is a palindrome, considering only integers. Eg: 2442

B) Now, take a string as an input and check whether it is Palindrome or not. eg: "Was it a car or a cat I saw?"

The expected output for this example will print, 'True'

6. Describe chr () and ord () functions. Write a small program to show its functionality. Using these functions, write a program to print:

Pattern for N=4

A

B B

C C C

D D D D

7. You have a single list of names (each name should have first name and last name). Write a programme

(a) to print the first names.

(b) to print the last names.

(c) to print each name as 'last\_name first\_name'.

(d) to print the names in the sorted order with respect to last name

Example :Input list: ['Mark Antony', 'Mohan Raj'],

Output :

a) ['Mark', 'Mohan']

b) ['Antony', 'Raj']

c) ['Antony Mark', 'Raj Mohan']

d) ['Mark Antony', 'Mohan Raj']

8. WAP to find the minimum of 3 numbers using

a) with conditional expressions. (No loops should be used)

b) with nested conditional expression. (No loops should be used)

c) similar to problem (b), find the minimum of 4 numbers.

9. Create a list of departments in IIT Madras (Minimum 5 ) and perform the following operations:



- append
- remove
- pop
- insert
- reverse
- sort
- count
- index
- extend
- slice
- clear

10. Differentiate deep copy and shallow copy.

Edit submission

Remove submission

Submission status

Submission status	Submitted for grading
Grading status	Graded
Time remaining	Assignment was submitted 6 days late
Last modified	Wednesday, 7 February 2024, 12:58 AM
File submissions	<div><div> <a href="#">AM23M022_LAB2_31_01_2024.pdf</a> 7 February 2024, 12:58 AM</div><div> <a href="#">AM23M022_LAB2_31_01_2024.py</a> 6 February 2024, 9:35 PM</div></div>
Submission comments	<div><div></div><div><div>▶</div><div><a href="#">Comments (0)</a></div></div></div>

Feedback

Grade	10.00 / 10.00
Graded on	Monday, 3 June 2024, 8:03 AM
Graded by	eM    ed19b019 MISHMA MARIYAM RAJU

◀ [Class on 29/01/2024](#)

Jump to...

[Lab2: Video link submission](#) ▶

You are logged in as Dinesh Kumar M (Log out)  
ED5340:JAN-MAY 2024

[Data retention summary](#)  
[Get the mobile app](#)