

### Programming in Python

#### **Prof. Sudarshan Iyengar**

Department of Computer Science and Engineering Indian Institute of Technology Ropar

#### Mr. Omkar Joshi

Course Instructor
IITM Online Degree Programme



#### Programming in Python

Tutorial on nested loops

### Problem 1: Find all prime numbers less than the entered number

Test Cases				
Sr. No.	Input	<b>Expected output</b>		
1	9	2 3 5 7		
2	15	2 3 5 7 11 13		
3	3	2		
4	2	No output		
5	1	No output		

# Problem 2: Find the total profit/loss of each trader working in a trading firm. Information regarding number of traders and number of transactions is unknown

Test Cases				
Sr. No.	Input	<b>Expected output</b>		
1	SJ_323 3534 56456 -2432 0	57558		
2	PK_874 9878 32 798 131 14 0	10853		
3	VM_578 -214 -24 -4543 8322 0	3541		
4	AT_194 242 -2412 20 0	-2150		
5	-1			

Problem 3: Find the day wise total rainfall for the entered duration of time e.g. week, month, etc.

Test Cases				
Day	Input	<b>Expected output</b>		
	7			
1	10 15 19 5 -1	49		
2	12 13 31 -1	56		
3	57 32 85 47 82 -1	303		
4	2 5 8 2 4 8 8 2 -1	39		
5	-1	0		
6	21 73 90 3 7 -1	194		
7	30 17 40 10 2 -1	99		

## Problem 4: Find the length of longest word from the set of words entered by the user

Test Cases				
Sr. No.	Input	<b>Expected output</b>		
1	IITM online degree -1	6		
2	Bachelor of science -1	8		
3	Computational thinking -1	13		
4	Introduction to python -1	12		
5	Programming data structures and algorithms	11		