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**University of Engineering & Management, Kolkata**

**Course: B.Tech Semester: 3rd**

**Paper Name: Data Structure & Algorithm Laboratory**

**Paper Code: PCC - CS391**

**ASSIGMENT NO.-1 (Conditional Statements and Loops)**

1. Write a Python program to find those numbers which are divisible by 7 and multiple of 5, between 1500 and 2700 (both included).

**INPUT:**

Case 1:

Enter the lower range:1500

Enter the upper range:2700

**OUTPUT:**

1505,1540,1575,1610,1645,1680,1715,1750,1785,1820,1855,1890,1925,1960,1995,2030,2065,2100,2135,2170,2205,2240,2275,2310,2345,2380,2415,2450,2485,2520,2555,2590,2625,2660,2695

1. Write a Python program to convert temperatures to and from celsius, fahrenheit.   
   [ Formula : c/5 = f-32/9 [ where c = temperature in celsius and f = temperature in fahrenheit ]

**INPUT:**

60°C

**OUTPUT:**

140 in Fahrenheit

1. Write a Python program to guess a number between 1 to 9.

**INPUT:**

Guess a number between 1 and 10 until you get it right : 5

**OUTPUT:**

Well guessed!

Note : User is prompted to enter a guess. If the user guesses wrong then the prompt appears again until the guess is correct, on successful guess, user will get a "Well guessed!" message, and the program will exit.

1. Write a Python program that accepts a word from the user and reverse it.

**INPUT:**

Input a word to reverse: ecruoser3w

**OUTPUT:**

w3resource

1. Write a Python program to count the number of even and odd numbers from a series of numbers.   
   **Input:** numbers = (1, 2, 3, 4, 5, 6, 7, 8, 9)   
   **Expected Output** :  
   Number of even numbers : 5  
   Number of odd numbers : 4
2. Write a Python program that prints each item and its corresponding type from the following list.

**INPUT:**

datalist = [1452, 11.23, 1+2j, True, 'w3resource', (0, -1), [5, 12], {"class":'V', "section":'A'}]  
**OUTPUT:**

Type of 1452 is <class 'int'>

Type of 11.23 is <class 'float'>

Type of (1+2j) is <class 'complex'>

Type of True is <class 'bool'>

Type of w3resource is <class 'str'>

Type of (0, -1) is <class 'tuple'>

Type of [5, 12] is <class 'list'>

Type of {'class': 'V', 'section': 'A'} is < class 'dict'>

1. Write a Python program that prints all the numbers from 0 to 6 except 3 and 6.  
   Note : Use 'continue' statement.

**Input: 6**  
**Expected Output** : 0 1 2 4 5

1. Write a Python program to get the Fibonacci series between 0 to 50.   
   Note : The Fibonacci Sequence is the series of numbers :  
   0, 1, 1, 2, 3, 5, 8, 13, 21, ....  
   Every next number is found by adding up the two numbers before it.

**INPUT:** 50  
**Expected Output** : 1 1 2 3 5 8 13 21 34

1. Write a Python program which iterates the integers from 1 to 50. For multiples of three print "Fizz" instead of the number and for the multiples of five print "Buzz". For numbers which are multiples of both three and five print "FizzBuzz".

Input:

**Enter no:**51  
**Sample Output :**  
fizzbuzz  
1  
2  
fizz  
4  
buzz  
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1. [Python program to check whether the string is Symmetrical or Palindrome](https://www.geeksforgeeks.org/python-program-to-check-whether-the-string-is-symmetrical-or-palindrome/?ref=leftbar-rightbar)

**Input:** khokho

**Output:**

The entered string is symmetrical

The entered string is not palindrome

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1. [Reverse words in a given String in Python](https://www.geeksforgeeks.org/reverse-words-given-string-python/)

**Input :** str = geeks quiz practice code

**Output :** str = code practice quiz geeks

1. [Python program to capitalize the first and last character of each word in a string](https://www.geeksforgeeks.org/python-program-to-capitalize-the-first-and-last-character-of-each-word-in-a-string/)

**Input:** hello world

**Output:** HellO WorlD

1. [Python program to check if a string has at least one letter and one number](https://www.geeksforgeeks.org/python-program-to-check-if-a-string-has-at-least-one-letter-and-one-number/)

**Input:** welcome2ourcountry34

**Output:** True

1. [Python program to count number of vowels using sets in given string](https://www.geeksforgeeks.org/python-program-count-number-vowels-using-sets-given-string/)

**Input :** GeeksforGeeks

**Output :** No. of vowels : 5

1. [Python program to split and join a string](https://www.geeksforgeeks.org/python-program-split-join-string/)

**Input:** ['Geeks', 'for', 'Geeks']

**Output:** Geeks-for-Geeks

Hacker rank Link: [www.hackerrank.com/python-day-1-2](https://www.hackerrank.com/python-day-1-2)

Attendance Link: <https://docs.google.com/forms/d/e/1FAIpQLSeXcRsEUpSDGKC9UDD679PVFlXJ-J5gHklHfZrl3zKatoJC4Q/viewform>

Assignment submission Link:

<https://docs.google.com/forms/d/e/1FAIpQLSfoIXKa_Oc6CV0C7u9mT5nqGsTjHFW5RkFsjw0xGRxmWZwdfA/viewform>

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