**Assignment 2 : Conditional and Looping Construct**

1. Ask the user for a number. Depending on whether the number is even or odd, print out an appropriate message to the user. *Hint: how does an even / odd number react differently when divided by 2?*

Extras:

* 1. If the number is a multiple of 4, print out a different message.
  2. Ask the user for two numbers: one number to check (call it num) and one number to divide by (check). If check divides evenly into num, tell that to the user. If not, print a different appropriate message.

1. Write a program that determines a student’s grade. The program will read three

scores and determine the grade based on the following rules:

-if the average score =90% =>grade=A

-if the average score >= 70% and <90% => grade=B

-if the average score>=50% and <70% =>grade=C

-if the average score<50% =>grade=F

1. Write a Python program to count the number of even and odd numbers from a series of numbers.

*Sample numbers* : numbers = (1, 2, 3, 4, 5, 6, 7, 8, 9)

*Expected Output* :

Number of even numbers : 5 Number of odd numbers : 4

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

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. Expected Output : 1 1 2 3 5 8 13 21 34

1. Write a Python program which takes two digits m (row) and n (column) as input

and generates a two-dimensional array. The element value in the i-th row and j-th column of the array should be i\*j.

Note :

i = 0,1.., m-1

j = 0,1, n-1.

Test Data : Rows = 3, Columns = 4 Expected Result : 0, 0, 0, 0

0, 1, 2, 3

0, 2, 4, 6

1. Write a Python program which accepts a sequence of comma separated 4 digit binary numbers as its input and print the numbers that are divisible by 5 in a comma separated sequence.

Sample Data : 0100,0011,1010,1001,1100,1001

Expected Output : 1010

1. Write a Python program to find numbers between 100 and 400 (both included) where each digit of a number is an even number. The numbers obtained should be printed in a comma-separated sequence.
2. Write a Python program to print alphabet pattern 'A',B,D,E,H,T,F,X,W,M,N,Z. For Eg of A.

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1. Write a Python program that accepts a word from the user and reverse it
2. Write a Python program that accepts a string and calculate the number of digits and letters.

Sample Data : Python 3.2 Expected Output :

Letters 6

Digits 2

1. Wite A Python program to use a Math Function in python and explain its use (Any 10 Built in Function)
2. Write A Python programming to use a Date() And Time() Function in Python Its Use (Any 5 Built in finction)
3. Write a Python program that reads two integers representing a month and day and prints the season for that month and day.

## Expected Output:

Input the month (e.g. January, February etc.): july Input the day: 31

Season is autumn

1. Write a Python program to find the median of three values.

## Expected Output:

Input first number: 15 Input second number: 26 Input third number: 29 The median is 26.0

1. Write a Python program to get next day of a given date.

## Expected Output:

Input a year: 2016

Input a month [1-12]: 08

Input a day [1-31]: 23

The next date is [yyyy-mm-dd] 2016-8-24

1. Write a Python program to calculate the sum and average of n integer numbers (input from the user). Input 0 to finish.
2. Write a Python program to construct the following pattern, using a nested loop

number.

## Expected Output:

1

22

333

4444

55555

666666

7777777

88888888

999999999

1. Write A Python Program to Convert Decimal to Binary, Octal and Hexadecimal(Use user defined Ask the user for a number. Depending on whether the number is even or odd, print out an appropriate message to the user. *Hint: how does an even / odd number react differently when divided by 2?*
2. Write A Python Program to Find ASCII Value of Character.
3. Write A Python Program to Find HCF or GCD and LCM.
4. Write A Python Program to Swap Two Variables
5. Write A Python Program to Generate a Random Number.
6. Write A Python Program to Convert Kilometers to Miles.
7. Write a program for calculate for factorial.
8. Write a program for insertion, bubble, selection.