SWS ASSIGNMENT 2

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ALL CODES ARE IN PYTHON LANGUAGE

Q1. Check whether a number is even or odd

```
# Program to check for even or odd numbers
 def isEven(n):
    return (n % 2 == 0)


n = 101
a = isEven(n)
if a==0:
            print(“Even”)
else
            print(“Odd”)
```

Q2. check whether a number is prime or not

```
# Python program to check if given number is prime or not
  num = 11
  if num > 1:
     for i in range(2, int(num/2)+1):
        if (num % i) == 0:
          print(num, "is not a prime number")
          break
         else:
            print (num, "is a prime number")
else:
   print(num, "is not a prime number")
```

Q3. check whether a number is perfect or not

```
def Perfect( n ):
```

```
        sum = 1
        i = 2
    while i * i <= n:
        if n % i == 0:
            sum = sum + i + n/i
        i = i+1
    return (True if sum == n and n!=1 else False)
 print("Below are all perfect numbers till 1000")
n = 2
for n in range (1000):
    if Perfect (n):
        print(n , " is a perfect number")
```

Q4. Fibonacci Series

```
a=int(input("Enter the terms"))
f=0
s=1
if a<=0:
    print("The series is ",f)
else:
    print(f,s,end=" ")
    for x in range(2,a):
        next=f+s
        print(next,end=" ")
        f=s
        s=next
```

Q5. Find Factorial of a number

```
n = 28
fact = 1
  for i in range(1,n+1):
```

```
   fact = fact * i
print ("The factorial of 28 is : ",end="")
print (fact)
```

Q6. swapping of two numbers

```
x = 5
y = 10
temp = x
x = y
y = temp
print("Value of x:", x)
print("Value of y:", y)
```

Q6. Asterisks Graph (Pyramid)

```
rows = int(input("Enter the number of rows for graph"));
for i in range(0, rows):
        for j in range(0, rows-i-1):
                print(end=" ")
for j in  range(0, i+1):
        print("*", end=" ")
print()
```

Q7. Divisiblity rule

By 2:

```
n=int(input(“Enter any number”))
If n%2==0 :
        Print(“The number is divisible by 2”)
Else
        Print(“The number is not divisible by 2”)
```

By 3:

```
def getSum(n):
```

```
    sum = 0
    for digit in str(n):
      sum += int(digit)
    return sum
n=int(input("Enter any number"))
a= getSum(n)
if a%3==0:
        print("The number is divisible by 3")
else:
        print("The number is not divisible by 3")
```

By 4:

```
n=int(input(“Enter any number”))
lasttwo= n%100
If lasttwo%4==0 :
        Print(“The number is divisible by 4”)
Else
        Print(“The number is not divisible by 4”)
```

By 5:

```
n=int(input(“Enter any number”))
If n%5==0 :
        Print(“The number is divisible by 5”)
Else
        Print(“The number is not divisible by 5”)
```

By 6 :

```
n=int(input(“Enter any number”))
If n%2==0 and n%3==0:
        Print(“The number is divisible by 6”)
Else
```

```
        Print(“The number is not divisible by 6”)
```

By 7:

```
s= int(input("Enter start number:"))
  if(s%7==0):
    print(“The number is divisible by 7”)
else
print(“The number is not divisible by 7”)
```

Q8. Leap year

```
year = int(input("Enter the year: "))
if (year % 4) == 0:
        if (year % 100) == 0:
                 if (year % 400) == 0:
                print(year,"is a leap year")
                else:
                print(year,"is not a leap year")
        else:
        print(year,"is a leap year")
else:
 print(year,"is not a leap year")
```

Q9. Cricket team average

```
scores= input('Enter Scores separated by space ')
print("\n")
numbers =scores.split()
for i in range(len(numbers)):
   numbers[i] = int(numbers[i])
print("Sum of their score = ", sum(numbers))
print("Average of their score = ", sum(numbers) / len(numbers))
```

Q10. Show avg numbers of even numbers of given range

```
maximum = int(input(" Please Enter the Maximum Value : "))
total = 0

for number in range(1, maximum+2):
   if(number % 2 == 0):
      print("{0}".format(number))
      total = total + number
avg = (total/((number+1)/2))
print("The Sum of Even Numbers from 1 to {0} = {1}".format(number, total))
print("Avg =", avg)
```