**Python DSA Solutions**

1. **WPP to read a string and convert all even indexed values into upper case.**

s='suhas Work'

def supper(s):

l=list(s.lower())

for ch in range(len(l)):

if ch%2==0:

l[ch] = l[ch].upper()

jn=''.join(l)

return jn

print(supper(s))

2. **WPP to Find the factorial of a given number.**

By using 3 logics:

import math

def fact\_logic\_1(n):

fact=1

i=1

while i<=n:

fact = fact \*i

i+=1

return fact

def fact\_logic\_2(n):

if n==0:

return 1

else:

return n\*fact\_logic\_2(n-1)

def fact\_logic\_3(n):

return math.factorial(n)

for i in range(1,11):

print(i,fact\_logic\_1(i),fact\_logic\_2(i),fact\_logic\_3(i),sep='\t\t')

3. **WPP to check wheather the given number is Prime or Not.**

def is\_prime1(n):

factors =0

for i in range(1,n+1):

if n%i==0:

factors = factors +1

return factors == 2

def is\_prime2(n,i):

if i==1:

return True

elif n%i==0:

return False

else:

i = i-1

return is\_prime2(n,i)

for i in range(2,11):

print(f'i={i}\t{is\_prime1(i)}\t{is\_prime2(i,i//2)}')

4. **WPP to extract digits present in the given number.**

n=int(input("Enter Number:"))

while n!=0:

d=n%10

n=n//10

print(d)

5. **WPP to find Sum of digits present in the given number.**

n=123

def sum\_of\_digits\_1(n):

sum=0

while n!=0:

d=n%10

sum=sum+d

n=n//10

return sum

print(f'sumof {n} of digits is :{sum\_of\_digits\_1(n)}')

def sum\_of\_digits\_2(n):

return sum([int(ch) for ch in str(n)])

print(f'sumof {n} of digits is :{sum\_of\_digits\_2(n)}')

6. **WPP to reverse of the given number.**

n=int(input("Enter number:"))

def reverse\_1(n):

r=0

while n!=0:

d=n%10

r=r\*10+d

n=n//10

return r

print(reverse\_1(n))

def reverse\_2(n):

return str(n)[::-1]

print(reverse\_2(n))

7.**WPP to check the give number is Palindrome or Not.**

n=int(input("Enter number:"))

def palin\_1(n):

temp = n

r=0

while n!=0:

d=n%10

r=r\*10+d

n=n//10

return r==temp

print(palin\_1(n))

def palin\_2(n):

s=str(n)

return s==s[::-1]

print(palin\_2(n))

8.**WPP to check whether the given digit is there in the number or not.**

n=int(input("Enter number:"))

key=int(input("Enter number to check:"))

def func\_1(n,key):

flag=False

while n!=0:

d=n%10

if d == key:

flag = True

break

n=n//10

return flag

print(func\_1(n,key))

def func\_2(n,key):

return str(key) in str(n)

print(func\_2(n,key))