Homework

1. **Write a program to input string and count alphabets, digits and special characters**

```
str1=input("Enter any string") # py13.5
ac=0
dc=0
sc=0
for ch in str1:
    if (ch>='a' and ch<='z') or (ch>='A' and ch<='Z'):
        ac=ac+1
    elif ch>='0' and ch<='9':
        dc=dc+1
    else:
        sc=sc+1


print(f'AlphaCount {ac}')
print(f'Digit Count {dc}')
print(f'Special Character Count {sc}')
```

2. **Write a program to input string convert into lowercase**

```
str1=input("Enter any string") # AbC
str2="" # Empty String

for ch in str1:
    if ch>='A' and ch<='Z':
        str2=str2+chr(ord(ch)+32)
    else:
        str2=str2+ch

print(str1)
print(str2)
```

3. **Write a program to input string and capitalize string, convert first letter of string into uppercase and remaining in lowercase**

```
str1=input("Enter any String") # python PYTHON
```

```python
str2="" #Empty string
first=True

for ch in str1:
    if first==True:
        if ch>='a' and ch<='z':
            str2=str2+chr(ord(ch)-32)
        else:
            str2=str2+ch
        first=False
    elif ch>='A' and ch<='Z':
        str2=str2+chr(ord(ch)+32)
    else:
        str2=str2+ch


print(str1)
print(str2)
```

4. Write a program to generate even number 2 to 100

```python
for num in range(2,101,2): # start=2,stop=101,step=2
    print(num,end=' ')
```

5. Write a program to generate odd number 2 to 100

```python
for num in range(1,101,2): # start=1,stop=101,step=2
    print(num,end=' ')
```

6. Write a program input number and generate table

```python
num=int(input("Enter any number")) # 5
for i in range(1,11): # start=1,stop=11,step=1
    print(f'{num}x{i}={num*i}')
```

Example:
```python
# Write a program to find input number is prime or not

num=int(input("Enter any number"))
c=0
```

```python
for i in range(1,num+1):
    if num%i==0:
        c=c+1

if c==2:
    print(f'{num} is prime')
else:
    print(f'{num} is not prime')
```

Example:
```python
# write a program to find factorial of input number

num=int(input("Enter any number")) # 4
fact=1

for i in range(1,num+1): # 1 2 3 4
    fact=fact*i

print(f'{num}-->{fact}')
```

Output
Enter any number6
6-->720

Example:
 # write a program to genreate sqr all numbers 1 to n
#n=5
#1 4 9 16 25

```python
n=int(input("Enter value of n"))
for num in range(1,n+1):
    print(num**2)
```

https://www.codechef.com/problems/BURGERS?tab=ide

```python
T=int(input())

for i in range(T):
```

```python
    A,B=map(int,input().split())
    if A<=B:
        print(A)
    else:
        print(B)
```

https://www.codechef.com/problems/DETSCORE?tab=ide

```python
T=int(input())
for i in range(T):
    X,N=map(int,input().split())
    S=(X//10)*N
    print(S)
```