Name: Arjun

Unique ID: E0222054

Subject: CSE 120 Python Programming

Q.NO: 1 Write a python code for converting length in cm to km

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In [1]:

```python
a = float(input("Enter a value: "))
convert = a/1000
print(a ,"cm = ",convert, "km")
```

```
Enter a value: 4
4.0 cm =  0.004 km
```

Q.NO: 2 Write a python program to check whether given number is palindrome or not

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In [3]:

```python
num = int(input("Enter a number: "))
reversed_num = 0
check = num

while num >0 :
    digit = num % 10
    reversed_num = reversed_num * 10 + digit
    num //= 10

print("Reversed Number: ",(reversed_num))

if (check == reversed_num):
    print("The number you entered is a Palindrome")

else:
    print("Its not an Palindrome")
```

```
Enter a number: 405
Reversed Number:  504
Its not an Palindrome
```

Q.NO: 3 Write a menu driven program for the following task
    a. factorial number
    b. Prime number
    c. Digit Product
    d. Digit Sum

```python
num = int(input("Enter a number "))
select = int(input("1.Factorial number\n" "2.Prime Number\n"
"3.Digit product\n" "4.Digit Sum \n"))

if select == 1:
    factorial = 1
    for i in range (1,num+1):
        factorial *= i

    print("The Factorial of",num, "is: ",end ="")
    print(factorial)

elif select == 2:
    temp = True
    if num > 1:
        for i in range(2,num//2 + 1):
            if num % i == 0:
                temp = False
                break
        if temp:
            print("It is a Prime Number")
        else:
            print("It is not a prime number")
    else:
        print("It is not a prime number")

elif select == 3:
    product = 1

    while num > 0:
        digit = num % 10
        product = product*digit
        num = num//10
    print("Product of digits is ",product)

elif select == 4:
    sum_val = 0
    while num > 0:
        digit = num % 10
        num = num//10
        sum_val = sum_val + digit

    print("Sum of digits is ",sum_val)
```

```
Enter a number 45
1.Factorial number
2.Prime Number
3.Digit product
4.Digit Sum
3
Product of digits is  20
```

Q.NO 4: Write a program to check whether given input is vowel or not

```python
inp = input("Enter Character ")
if inp in ["a","e","i","o","u"]:
    print("It is a vowel in lower case")
if inp in ["A","E","I","O","U"]:
    print("It is a vowel in upper case")
else:
    print("It is a consonant")
```

```
Enter Character Q
It is a consonant
```

Q.NO 5: Write a program that prompts the user to enter a string. The program calculates and displays the length of the string until user enters "quit".
    HINT: use while loop

```python
while True:
    inp = input('Enter a String:')
    if inp == "quit":
        break
    r = len(inp)
    print("The length of the string is ",r)
```

```
Enter a String:a
The length of the string is  1
Enter a String:dhuiasf
The length of the string is  7
Enter a String:iufa
The length of the string is  4
Enter a String:quit
```

Q.NO 6: Write a program to calculate parking charge of a vehicle. Enter the type of vehicle as character (c for car, b for bus, K for bike)
    and number of hours, then calculate charge as given below
    Bus- 20 per Hour
    Bike - 10 per hour
    Car - 15 Per Hour

```python
time = int(input("Enter number of hours:"))
select =(input("1.c for Car\n2.b for Bus\n3.k for Bike\n"))
if (select == "c"):
    fare = time*15
    print("Fare is",fare,"Rs")
elif select == "b":
    fare = time*20
    print("Fare is",fare,"Rs")
elif select == "k":
    fare = time*10
    print("Fare is",fare,"Rs")
else:
    print("Please enter a valid input")
```

```
Enter number of hours:5
1.c for Car
2.b for Bus
3.k for Bike
k
Fare is 50 Rs
```

Name: ARJUN

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Subject: CSE 120 PYTHON PROGRAMMING

CA2 -MODULE 2 Activity

1. write a program that accepts different number of arguments and return sum of only the positive values

In [8]:

```
1  num = 0
2  res = 0
3  inp = int(input("Enter the no.of digits you want to Add"))
4  for i in range(inp):
5      num = int(input('Enter a number: '))
6      if num>=0:
7          res += num
8
9  print('The Sum of the Positives Numbers you entered is', res)
```

```
Enter the no.of digits you want to Add3
Enter a number: 8
Enter a number: -9
Enter a number: 7
The Sum of the numbers you entered is 15
```

2. write a program that combines the two list

In [55]:

```python
l1 = []
l2 = []
res = 0
count = 1
count1 = 1
num = int(input("Enter the no. of elements you want to append in both the lists: "))
while count <= num:
    inp1 = input("Enter Any number for List 1:")
    l1.extend(inp1)
    count += 1
while count1 <= num:
    inp2 = input("Enter Any number for List 2:")
    l2.extend(inp2)
    count1 += 1
res = l1 +l2
print(res)
```

```
Enter the no. of elements you want to append in both the lists: 2
Enter Any number for List 1:4
Enter Any number for List 1:5
Enter Any number for List 2:6
Enter Any number for List 2:7
['4', '5', '6', '7']
```

3. write a program to cube every elements in the tuple

In [46]:

```python
tup=()
num=int(input("enter the number of elements: "))
for i in range(1,num+1):
    val=int(input("enter element %d="%i))
    tup+=(val,)
print("tuple =",tup)
for i in tup:
    print(i,i**3)
```

```
enter the number of elements: 2
enter element 1=4
enter element 2=5
tuple = (4, 5)
4 64
5 125
```

4. write a program that has list of numbers (both positive and negative). make a new tuple that has only positive values from the tuple

In [45]:

```python
mytup=()
num=int(input("Enter the number of elements in tuple:"))
for i in range(1,num+1):
    element=int(input("Enter element %d :"%i))
    mytup+=(element,)
print("tuple=",mytup)
postup=()
for i in mytup:
    if i>0:
        postup+=(i,)
print("positive tuple=",postup)
```

```
Enter the number of elements in tuple:6
Enter element 1 :5
Enter element 2 :-8
Enter element 3 :7
Enter element 4 :-6
Enter element 5 :8
Enter element 6 :-1
tuple= (5, -8, 7, -6, 8, -1)
positive tuple= (5, 7, 8)
```

5. Write a program that creates two dictionaries. one that stores conversion values from meteres to cm and the other that stores values from cm to meters.

In [69]:

```python
sel = int(input("Enter\n 1 For converting cm to m\n 2 For converting m to cm \n"))
count = int(input("Enter how many times You want to run this code: "))

dict1 = {}
dict2 = {}

for i in range (count):
    num = int(input("Enter a number to convert:"))
    if sel == 1:
        conv1 = num/100
        dict1[num] = conv1
        num+=1
    elif sel == 2:
        conv2 = num*100
        dict2[num] = conv2

        num+=1
    else:
        print("Please enter a valid input")
if sel==1:
    print(dict1)
else:
    print(dict2)
```

```
Enter
 1 For converting cm to m
 2 For converting m to cm
2
Enter how many times You want to run this code: 2
Enter a number to convert:45
Enter a number to convert:56
{45: 4500, 56: 5600}
```

6. a. Write a program that creates a dictionary of cubes of odd numbers in range 1-50

In [56]:

```python
dict1 = {}
for i in range(1,51,2):

    a = i**3
    dict1[i] = a
print(dict1)

```

```
{1: 1, 3: 27, 5: 125, 7: 343, 9: 729, 11: 1331, 13: 2197, 15: 3375, 17: 491
3, 19: 6859, 21: 9261, 23: 12167, 25: 15625, 27: 19683, 29: 24389, 31: 2979
1, 33: 35937, 35: 42875, 37: 50653, 39: 59319, 41: 68921, 43: 79507, 45: 911
25, 47: 103823, 49: 117649}
```

6. b Write a program to create a list of numbers from the list range from 1-30. then delete all the numbers from the list that are divisible by 3.

In [88]:

```python
lst = []
for i in range(1,21):
    lst.append(i)
print (lst)
for index,i in enumerate(lst):
    if (i%3 == 0):
        del lst[index]
print("The list after deletion of elements that are divisible by 3 are: ",lst)
```

```
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20]
The list after deletion of elements that are divisible by 3 are:  [1, 2, 4,
5, 7, 8, 10, 11, 13, 14, 16, 17, 19, 20]
```

6c. write a program to print the string which has the vowel in it eg: [python, C, R,ML,Java] output: python,Java

In [1]:

```python
lst = []
res = []
num = int(input("How many elements you want to enter: "))
for i in range(1,num+1):
    var = input("Enter string: ")
    lst.append(var.lower())
for i in lst:
    for j in i:
        if j in ["a","e","i","o","u"]:
            res.append(i)
        else:
            pass
print("The final list is ",res)
```

```
How many elements you want to enter: 2
Enter string: python
Enter string: C
The final list is  ['python']
```

WELL DONE

In [1]:

```python
def rev_val(inp_val):
    out_val = inp_val[::-1]
    return out_val

s = input()

print("Reversing",s,"gives",rev_val(s))
```

```
Arjun
Reversing Arjun gives nujrA
```

In [4]:

```python
def upper_lower(inp_val):
    upper_count = 0
    lower_count = 0
    for i in inp_val:
        if i.isupper():
            upper_count +=1
        elif i.islower():
            lower_count +=1
        else:
            pass
    return upper_count,lower_count

u,l = upper_lower(input("Enter String here: "))
print("Upper Case Charcaters:",u)
print("Lower Case Charcaters:",l)
```

```
Enter String here: Arjun
Upper Case Charcaters: 1
Lower Case Charcaters: 4
```

In [ ]:

```python

```