slm77ewjc

February 10, 2023

[1]:
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#excercise --1(BASICS)
# 1.a Running instructions in interactive interpreter and a python script
# Ans.--> shift+Enter------>Run cell
# -->ctrl+s-------->save
# -->ctrl+M+B------>New cell
# -->ctrl+M+D------>Delete cell
# -->shift+/------>Comment
```

[2]:
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#2.Program to raise indentation error and correct it
n=int(input("Enter number:"))
if n%2==0:
    print("Even Number")
else:
print("Odd Number")
```

```
  Cell In[2], line 6
    print("Odd Number")
    ^
IndentationError: expected an indented block after 'else' statement on line 5
```

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```
n=int(input("Enter number:"))
if n%2==0:
    print("Even Number")
else:
    print("Odd Number")
```

```
Enter number:2
Even Number
```

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#3.Program to compute GCD of 2 numbers
def gcd(a,b):
    if a==0:
        return b
    return gcd(b%a,a)
a=int(input("Enter a number:"))
b=int(input("Enter a number:"))
```

```
n=gcd(a,b)
print(n)
```

```
Enter a number:5
Enter a number:17
1
```

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#5.Program to check even or not
p=int(input())
if p%2==0:
    print("It is even number")
else:
    print("It is not even number")
```

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4
It is even number
```

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#6.Program using for loop that loops over a sequence
n=int(input("Enter the number:"))
for i in range(n):
    print(i,end=" ")
```

```
Enter the number:10
0 1 2 3 4 5 6 7 8 9
```

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#7.Program to print Fibonacci series using while
n=int(input("Enter the number:"))
a=0
b=1
i=0
while i<n:
    print(a,end=" ")
    c=a+b
    a=b
    b=c
    i=i+1
```

```
Enter the number:8
0 1 1 2 3 5 8 13
```

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#8.Print aa prime numbers in given interval
f=int(input())
l=int(input())
count=0
for i in range(f,l):
    if i>1:
        count=0
        for j in range(2,i):
```

```
            if i%j==0:
                count=count+1
                break
        if count==0:
            print(i,end=" ")
```

```
0
20
2 3 5 7 11 13 17 19
```

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#9.Find mean ,mode,median for given set of data
list=[2,3,4,5,6,7,8,4]
mean=sum(list)/len(list)
median=list[len(list)//2]
mode=max(set(list),key=list.count)
print(mean)
print(median)
print(mode)
```

```
4.875
6
4
```

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#10.Program to convert list and tuple into arrays
import numpy
l=[10,20,30,40,50]
t=[1,2,3,4,5,6]
a=numpy.array(l)
b=numpy.array(t)
print(a)
print(b)
print(type(a))
print(type(b))
```

```
[10 20 30 40 50]
[1 2 3 4 5 6]
<class 'numpy.ndarray'>
<class 'numpy.ndarray'>
```

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#11.Program to find common values between two arrays
l1=[int(x) for x in input().split()]
l2=[int(x) for x in input().split()]
l3=[]
for i in l1:
    if i in l2:
        l3.append(i)
print(set(l3))
```

```
10 20 30 40 50 60
10 20 20 30 70 40
{40, 10, 20, 30}
```

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#12.Program to count no of characters in a string
j={}
x=input()
y=list(x)
for i in y:
    if i not in j:
        j[i]=1
    else:
        j[i]=j[i]+1
print(j)
```

```
dfgdda
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_16496\799544854.py in <module>
      2 j={}
      3 x=input()
----> 4 y=list(x)
      5 for i in y:
      6     if i not in j:

TypeError: 'list' object is not callable
```

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#13.Program to combine two lists into a dictionary
l1=[x for x in input("Enter the list:").split()]
l2=[int(x) for x in input("Enter the list:").split()]
dic={}
for i in l1:
    for j in l2:
        dic[i]=j
        l2.remove(j)
        break
print(dic)
```

```
Enter the list:a b c
Enter the list:1 2 3
{'a': 1, 'b': 2, 'c': 3}
```

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#14.Program to check whether string starts with specified character
s=input()
c=input("Enter the Character:")
if s[0]==c:
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    print("Yes string starts with specified character")
else:
    print("No it will not start")
```

```
sindhu
Enter the Character:g
No it will not start
```

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#15.Program to check whether the string is palindrome
s=input("Enter the string:")
rev=s[::-1]
if(s==rev):
    print("It is palindrome")
else:
    print("It is not palindrome")
```

```
Enter the string:rotator
It is palindrome
```

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#16.Program to split and join a string
s=input("Enter a string:")
m=s.split(" ")
n=".".join(m)
print(n)
```

```
Enter a string:hi this is sindhu
hi.this.is.sindhu
```

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#17.Program to sort words in alphabetical order
s=input("Enter the string:")
m=s.split(" ")
n=sorted(m)
print(n)
```

```
Enter the string:hi abec ghfd
['abec', 'ghfd', 'hi']
```

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#21.Simple caluclator program by making use of functions
def add(a,b):
    print(a+b)
def sub(a,b):
    print(a-b)
def mul(a,b):
    print(a*b)
def div(a,b):
    print(a/b)
print("1.Addition\n2.Subtraction\n3.Multiplication\n4.Division")
n=int(input())
```

```
x=int(input("Enter the first value:"))
y=int(input("Enter the second value:"))
if n==1:
    add(x,y)
elif n==2:
    sub(x,y)
elif n==3:
    mul(x,y)
elif n==4:
    div(x,y)
else:
    print("No option")
```

```
1.Addition
2.Subtraction
3.Multiplication
4.Division
1
Enter the first value:34
Enter the second value:56
90
```

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#22.Factorial of a number using recursion
def fact(n):
    if(n==0):
        return 1
    elif(n==1):
        return 1
    else:
        return n*fact(n-1)
n=int(input())
res=fact(n)
print(res)
```

```
5
120
```

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#23.Function dups to find all duplicates in thye list
def dup(lis):
    li_se=set(lis)
    for i in li_se:
        if lis.count(i)>1:
            res_li.append(i)
    return res_li
l=[int(x) for x in input().split()]
res_li=[]
result=dup(l)
```

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print(result)
```

```
1 5 5 3 1 1 8 9 5
[1, 5]
```

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#24.Program to find unique elements of a list
def unique(lis):
    li_se=set(lis)
    for i in li_se:
        if lis.count(i)==1:
            res_li.append(i)
    return res_li
li=[int(x) for x in input().split()]
res_li=[]
result=unique(li)
print(result)
```

```
10 20 30 20 50 60 30
[10, 50, 60]
```

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#25.Program to find cummulative product of a list
def prod(lis):
    mul=1
    for i in lis:
        mul=i*mul
    return mul
l=[int(x) for x in input().split()]
res=prod(l)
print(res)
```

```
10 20 30 40 50
12000000
```

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#26.Print the reverse order of elements in list
def reverse(lis):
    o=lis
    for i in range(len(o)):
        rev.append(lis.pop())
    return rev
l=[int(x) for x in input().split()]
rev=[]
res=reverse(l)
print(res)
```

```
10 20 30 40 50
[50, 40, 30, 20, 10]
```

[ ]:
```
#27.Function to compute lcm,gcd of two numbers
def gcd(a,b):
    if a==0:
        return b
    return gcd(b%a,a)
def lcm(res1):
    return (a//res1)*b
a=int(input("Enter First number:"))
b=int(input("Enter Second number:"))
res1=gcd(a,b)
res2=lcm(res1)
print(res2)
print(res1)
```

```
Enter First number:4
Enter Second number:3
12
1
```

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