In [1]:
```
a=input("Enter the String")
vowel=['a','e','i','o','u']
a=a.lower()
for i in a:
    if i in vowel:
        pass
    else:
        print(i,end="")
```

```
Enter the StringHello THis is Darshan From Python world
hll ths s drshn frm pythn wrld
```

In [4]:
```
def num(a,b):
    print(a+b)
num(5,6)
def greet(name,msg):
    print("Hello name is ",name)
    print("Hello Msg is ",msg)

greet(name='Darshan',msg='GoodMorning')
```

```
11
Hello name is  Darshan
Hello Msg is  GoodMorning
```

In [7]:
```
class Demo:
    a=50
    def __init__(self,n):
        self.n=n
        print(self.n)
    def val(self,num):
        mul=5
        print(num*mul)
d=Demo(6)
d.val(5)
```

```
6
25
```

In [17]:
```
sum1=lambda x,y: print(x+y)
sum1(5,13)
```

```
18
```

In [26]:
```
class Laibrary:
        Acc_number=0
        publisher=""
        title=""
        author=""
        fine=0
        def Read(self,Acc_number,publisher,title,author):
            self.Acc_number=Acc_number
            self.publisher=publisher
            self.title=title
            self.author=author
        def Compute(self,no_ofdays):
            self.fine=no_ofdays*5
        def Display(self):
            print('AccNo',self.Acc_number)
            print('publisher',self.publisher)
            print('title',self.title)
            print('author',self.author)
            print('Fine',self.fine)
l=Laibrary()
l.Read(5547,'Nirali','Python Programming','Darshan')
l.Compute(5)
l.Display()
```

```
AccNo 5547
publisher Nirali
title Python Programming
author Darshan
Fine 25
```

In [35]:
```
fname=input("Enter file name with extension")

try:
    f=open(fname,'r')
    a=f.read()
    lines=a.split("\n")
    words=a.split(" ")
    print(len(lines)," line")
    print(len(words),"words")
    print(len(a),"charater")
except:
    print("Sorry file not found")
```

```
Enter file name with extensionnew.txt
2  line
9 words
59 charater
```

In [39]:
```
import pymongo as py
client=py.MongoClient("mongodb://localhost:27017")
db=client['NewStudentDb']
coll=db['NewTable']
list=[{'id':5,'name':'Darshan','Age':25},{'id':4,'name':'Swayam','Age':18},
coll.insert_many(list)
```

Out[39]:
```
<pymongo.results.InsertManyResult at 0x2d5ec253b50>
```

In [41]:
```
for i in coll.find({},{'_id':0}):
    print(i)
```

```
{'id': 5, 'name': 'Darshan', 'Age': 25}
{'id': 4, 'name': 'Swayam', 'Age': 18}
{'id': 3, 'name': 'Ritesh', 'Age': 22}
{'id': 1, 'name': 'Vishwajeet', 'Age': 22}
{'id': 2, 'name': 'Bhagwan', 'Age': 22}
```

In [42]:
```
coll.update_one({'id': 5},{"$set":{'age':22}})
```

Out[42]:
```
<pymongo.results.UpdateResult at 0x2d5ead6e3e0>
```

In [43]:
```
for i in coll.find({},{'_id':0}):
    print(i)
```

```
{'id': 5, 'name': 'Darshan', 'Age': 25, 'age': 22}
{'id': 4, 'name': 'Swayam', 'Age': 18}
{'id': 3, 'name': 'Ritesh', 'Age': 22}
{'id': 1, 'name': 'Vishwajeet', 'Age': 22}
{'id': 2, 'name': 'Bhagwan', 'Age': 22}
```

In [44]:
```
coll.delete_one({'Age':22})
```

Out[44]:
```
<pymongo.results.DeleteResult at 0x2d5e9c38670>
```

In [45]:
```
for i in coll.find({},{'_id':0}):
    print(i)
```

```
{'id': 5, 'name': 'Darshan', 'Age': 25, 'age': 22}
{'id': 4, 'name': 'Swayam', 'Age': 18}
{'id': 1, 'name': 'Vishwajeet', 'Age': 22}
{'id': 2, 'name': 'Bhagwan', 'Age': 22}
```

In [53]:
```
a=input("ENter String")
number=int(input("Enter the number"))
if(a==a[::-1]):
    print('String is Palindrome')
else:
    print("Sorry Not String palindrome")
res=0
num=number
while(number>0):
    rem=number%10
    number=number//10
    res=(res*10)+rem

if(res==num):
    print('palindrome')
else:
    print("Sorry Not")
```

```
ENter Stringnpn
Enter the number525
String is Palindrome
palindrome
```

In [57]:
```
pyth=open('new.py','r')
rem=pyth.read()
print(rem)
rem=rem.replace('#','')
print(rem)
```

```
def hello():
    #print("THis is My new Program")
a=15
#b=10
#c=a*b
def hello():
    print("THis is My new Program")
a=15
b=10
c=a*b
```

In [59]:
```
def fact(no):
    if(no==1):
        return 1
    return fact(no-1)*no
fact(5)
```

Out[59]: 120

In [62]:
```
import threading as t
import time
def count(no):
    for i in range(no):
        time.sleep(1)
        print(i)
t=t.Thread(target=count,args=(5,))
t.start()
```

```
0
1
2
3
4
```

In [66]:
```
import threading as t
class Demo(Thread):
    def run(self):
        for i in range(5):
            time.sleep(1)
            print(i)

d=Demo()
d.start()
```

```
0
1
2
3
4
```

In [68]:
```
import re
password=input("Enter the Password")
if(len(password)>8):
    if(re.findall(r"[a-z]",password)):
        if(re.findall(r"[A-Z]",password)):
            if(re.findall(r"[0-9]",password)):
                if(re.findall(r"[@#$%^&*!]",password)):
                    print("Valid Password")
                else:
                    print("Invalid Password symbole")
            else:
                print("Invalid Password number")
        else:
            print("Invalid Password capital")
    else:
         print("Invalid Password small letter")
else:
    print("Invalid Password length")
```

```
Enter the PasswordDarshan@wak77
Valid Password
```

In [76]:
```
def num():
    for i in range(5):
        yield(i)
a=num()
print(next(a))
print(next(a))
print(next(a))
print(next(a))
print(next(a))
```

```
0
1
2
3
4
```

In [94]:
```
import numpy as np
arr=np.array([[1,2,3],[4,5,6],[7,8,9]])
print(arr)
arr[2,2]
a=np.array([1,2])
print(arr[a])
a=np.array([[True,False,True],[True,False,True],[True,False,True]])
print(arr[a])
arr[2:6]
```

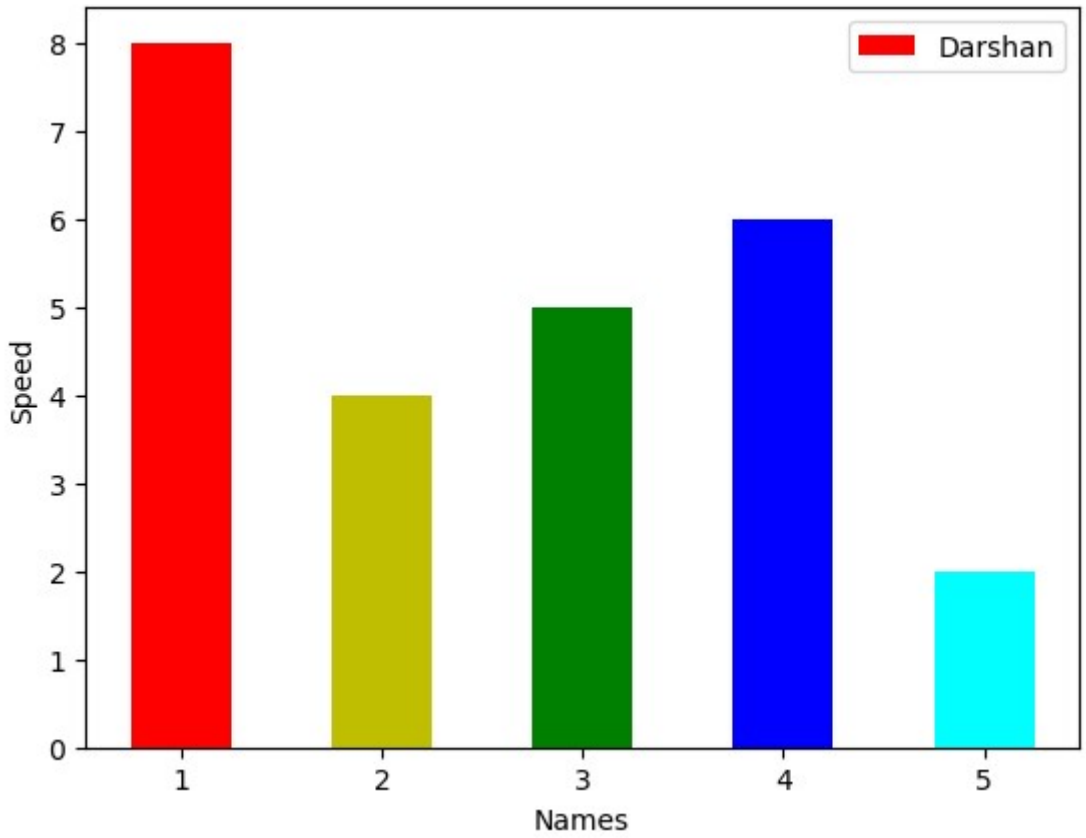
```
[[1 2 3]
 [4 5 6]
 [7 8 9]]
[[4 5 6]
 [7 8 9]]
[1 3 4 6 7 9]
```

Out[94]:
```
array([[7, 8, 9]])
```

In [6]:
```
import matplotlib.pyplot as plt
plt.bar([1,2,3,4,5],[8,4,5,6,2],color=['r','y','g','b','cyan'],width=0.5)
plt.xlabel("Names")
plt.ylabel("Speed")
plt.legend(['Darshan','Swayam','Ritesh','Vishwajeet','Bhagwan'])
```

```
---------------------------------------------------------------------------
-
TypeError                                 Traceback (most recent call las
t)
Cell In[6], line 6
      4 plt.ylabel("Speed")
      5 plt.legend(['Darshan','Swayam','Ritesh','Vishwajeet','Bhagwan'])
----> 6 plt.xticks['Darshan','Swayam','Ritesh','Vishwajeet','Bhagwan']

TypeError: list indices must be integers or slices, not tuple
```



In [118]:
```
import pandas as pd
df=pd.read_csv("Automobile_data.csv")
df=df.iloc[0:6,0:4]
```

In [122]:
```
df.fillna(0)
df.tail(2)
```

Out[122]:

	index	company	body-style	wheel-base
4	4	audi	sedan	99.4
5	5	audi	sedan	99.8

In [138]:
```
import numpy as np
arr=np.array([[1,2,3],[4,5,6],[7,8,9]])
print(arr)
arr.shape
np.zeros([3,3])
np.eye(3,dtype='int8')
np.random.random((5,5))
```

```
[[1 2 3]
 [4 5 6]
 [7 8 9]]
```

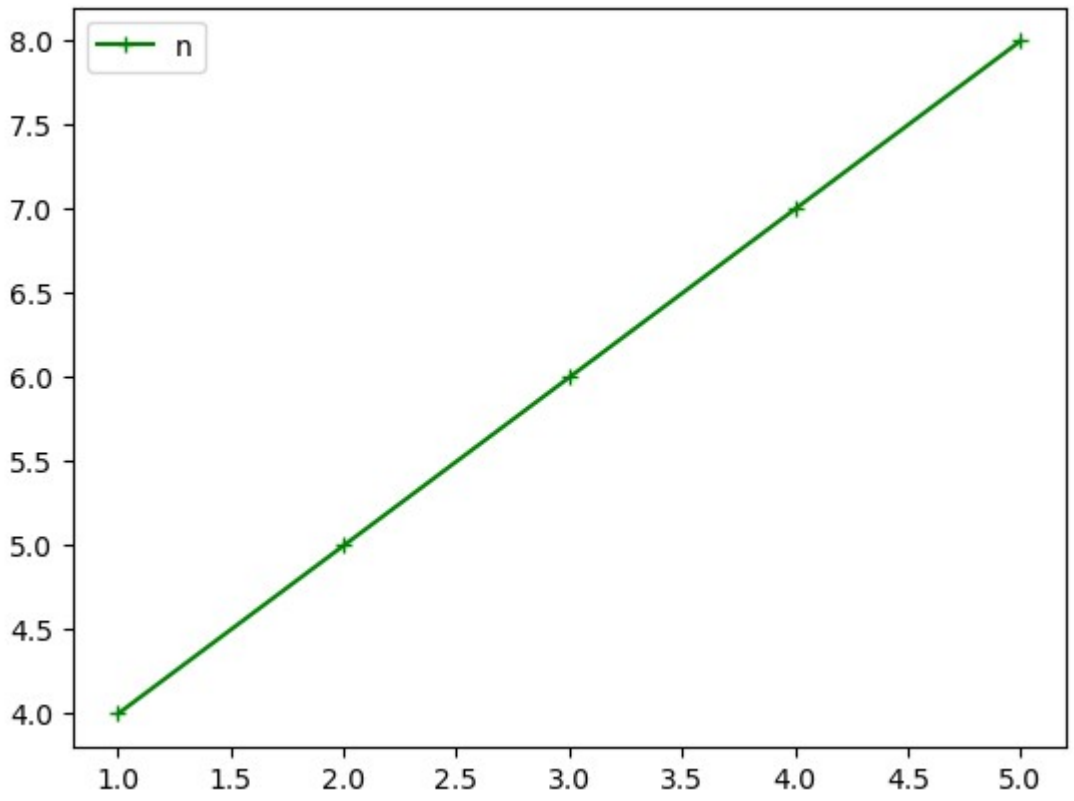
Out[138]:
```
array([[0.47485664, 0.84134498, 0.66131103, 0.99918519, 0.22971699],
       [0.05980888, 0.24161998, 0.65485038, 0.10064682, 0.49339041],
       [0.82631884, 0.30128206, 0.26959159, 0.47210669, 0.20846805],
       [0.50283653, 0.99214418, 0.11325123, 0.16261895, 0.29069708],
       [0.64809455, 0.69899726, 0.46317473, 0.67570157, 0.61573378]])
```

In [145]:
```
import pandas as pd
df=pd.read_csv("Automobile_data.csv")
df
print(df.columns)
print(df.tail(3).iloc[:,0:3])
```

```
Index(['index', 'company', 'body-style', 'wheel-base', 'length', 'engine-t
ype',
       'num-of-cylinders', 'horsepower', 'average-mileage', 'price'],
      dtype='object')
    index     company body-style
58     86  volkswagen      sedan
59     87       volvo      sedan
60     88       volvo      wagon
```

In [150]:
```
import matplotlib.pyplot as py
py.plot([1,2,3,4,5],[4,5,6,7,8],color='g',marker='+')
py.legend("newval")
```

Out[150]:
```
<matplotlib.legend.Legend at 0x2d5f9649c30>
```



In [157]:
```
class Vehical:
    def info(self,name,wheels):
        self.name=name
        self.wheels=wheels
    def disp(self):
        print(self.name)
        print(self.wheels)
class cycle(Vehical):
    def info(self,company,name,wheel):
        super().info(name,wheel)
        self.company=company
    def disp(self):
        super().disp()
        print(self.company)

class Bike(cycle):
    def info(self,company,name,wheel,helmate):
        super().info(company,name,wheel)
        self.helmate=helmate
    def disp(self):
        super().disp()
        print(self.helmate)

b=Bike()
b.info('Yamaha','Fzs',2,'Necessary')
b.disp()
```

```
Fzs
2
Yamaha
Necessary
```

In [209]:
```
import re
a="00500.00200.00401.00101"
st=re.findall(r"[1-9]+[10-10000]*",a)
print(st)
```

```
['500', '200', '401', '101']
```

In [3]:
```
s='Darshan'
s.swapcase()
```

Out[3]: 'dARSHAN'