In [1]:

```
#take character input from user
a=input ("enter any character: ")
#check for alphabet and digit.
if a.isalpha() :
     print ("/n"+a,"is A ALPHABET")
elif a.isdigit() :
    print ("/n"+a,"is A DIGIT.")
else:
     print ("/n"+a,"is A SYMBOL.")
```

```
enter any character: HARIHARAN
/nHARIHARAN is A ALPHABET
```

In [3]:

```
#tack character input from user
a = input("enter any character: ")
#check for vowel and constent.
if(a=='A' or a=='a' or a=='E' or a=='e' or a=='I' or a=='i' or a=='O' or a=='o' or a=='U' o
    print (a,"is a vowel. ")
else:
    print (a,"is a consonant")
```

```
enter any character: I
I is a vowel.
```

In [1]:

```
#tack character input from user
a = input("enter any character: ")
#check for vowel and constent.
if(a=='A' or a=='a' or a=='E' or a=='e' or a=='I' or a=='i' or a=='O' or a=='o' or a=='U' o
    print (a,"is a vowel. ")
else:
    print (a,"is a consonant")
```

```
enter any character: B
B is a consonant
```

In [2]:

```
#take integer input from user
num=-20
if num>0:
    print("positive number.")
else:
        print("negative number.")
```

```
negative number.
```

In [3]:

```
#take integer input from user
num=520
if num>0:
    print("positive number.")
else:
        print("negative number.")
```

```
positive number.
```

In [9]:

```
#Evaluating the expression.
P=(20*1+100*2+6*4+3*8)
X3=(P-(118*2))
print(X3)
```

```
32
```

In [5]:

```
#Arithmetic operation.
a=20
b=34
#Addition of numbers
add = a + b
#subtraction of numbers
sub = a - b
#multiplication of number
mul = a * b
#division (float) of number
div1 = a / b
#division (floor) of number
div = a // b
#modulo of both number
mod = a % b
#power
p = a ** b
#print results
print(add)
print(sub)
print(mul)
print(div1)
print(div)
print(mod)
print(p)
```

```
54
-14
680
0.5882352941176471
0
20
17179869184000000000000000000000000000000000
```

In [8]:

```
#take two different values from user input.
#"=="
a=[12,32,15]
b=[12,30,15]

#comparing using "==" operation.
if a==b:
    print('yes')
else:
        print('no')
```

```
no
```

In [7]:

```
import math as m
x=float(input("enter the number 1 :"))
y=float(input("enter the number 2 :"))
print("a)",abs(x))
print("b)",m.sqrt(x))
print("c)",m.exp(x))
print("d)",m.log(x))
print("e)",m.pow(x,y))
print("f)",m.ceil(x))
print("g)",max(x,y))
print("h)",min(x,y))
```

```
enter the number 1 :12
enter the number 2 :5
a) 12.0
b) 3.4641016151377544
c) 162754.79141900392
d) 2.4849066497880004
e) 248832.0
f) 12
g) 12.0
h) 5.0
```

In [10]:

```
num1=344.767
num2=567.12367
num3=12300000
print("{:9.2f}".format(num1))
print("{:5.3f}".format(num2))
print("{:.3e}".format(num3))
```

```
   344.77
567.124
1.230e+07
```