

1)Code:
n=int(input("enter the year:"))
if (n%4==0 and n%100!=0)or n%400==0:
 print(f"{n} is a leap year.")
else:
 print(f"{n} is not a leap year.")
Output:
enter the year:2000
2000 is a leap year.

2)Code:
def count(word):
 vowels=['a','e','i','o','u','A','E','I','O','U']
 c=0
 for char in word:
 if char in vowels:
 c=c+1
 return c
word=input("enter the word:")
r=count(word)
print(r)
Output:
enter the word:HELLO
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3)Code:
list=[]
for i in range(6):
 list.append(input("enter a name:"))
for n in list:
 if n.lower().startswith('a') or n.upper().startswith('A'):
 print(f"{n}")
Output:
enter a name:arjun
enter a name:avi
enter a name:anu
enter a name:gopal
enter a name:ram
enter a name:sree
arjun
avi
Anu

4)Code:
def square(num):
 print(num**2)
def cube(num):
 print(num**3)
list=[]
for i in range(10):
 list.append(int(input("enter a number:")))
for n in list:
 if n%2==0:
 square(n)
 else:
 cube(n)

Output:

```
enter a number:1
enter a number:2
enter a number:3
enter a number:4
enter a number:5
enter a number:6
enter a number:7
enter a number:8
enter a number:9
enter a number:10
1
4
27
16
125
36
343
64
729
100
```

5)Code:

```
c=int(input("enter no of roses u want:"))
d=int(input("enter the distance from your place:"))
cc=c*10
print(f"the cost of roses is {cc}")
dd=0
if d<5:
    print("delivery charge is 25")
    dd=25
elif d>=5 and d<=10:
    print("delivery charge is 50")
    dd=50
else:
    print("delivery charge is 75")
    dd=75
print(f"The total charge is {cc}+{dd}={cc+dd}")
```

output:

```
enter no of roses u want:5
enter the distance from your place:5
the cost of roses is 50
delivery charge is 50
The total charge is 50+50=100
```