DAY 2 Q9

```
 a=input("enter the month")
b=int(input("enter the date"))
if a in('jan','feb','mar'):
    season='summer'
elif a in('apr','may','jun'):
    season='spring'
elif a in('july','aug','sep'):
    season='autumn'
else:
    season='winter'
if(a=='march') and(b>20):
    season='summer'
elif(a=='june') and(b>21):
    season='spring'
elif(a=='sep')and (b>22):
    season='autumn'
elif(a=='dec')and(b>21):
    season='winter'
print("season is",season)
```

DAY 2 Q1

```
def fib(n):


    if n <= 1:


       return n


   return fib(n-1) + fib(n-2)
def countWays(s):
   return fib(s + 1)
s = int(input("enter number of stairs"))


print ("Number of ways = ",countWays(s))
```

DAY 2 Q2

```
n=int(input("enter the year"))
a=n%400
b=n%100
c=n%4
if(a==0 and b==0 and c!=0):
    print("leap year")
elif(n<=0):
    print("invalid input")
else:
    print("not a leap year")
    print("leap year",n-3)
```

DAY 2 Q7

```
def Parenthesis(str,n):
    if(n > 0):
        _Parenthesis(str,0,n,0,0)
    return
def _Parenthesis(str,pos,n,open,close):
    if(close==n):
        for i in str:
            print(i,end="")
        print()
        return
    else:
        if(open>close):
            str[pos] = '}'
            _Parenthesis(str,pos+1,n,open,close+1)
        if(open<n):
            str[pos] = '{'
            _Parenthesis(str,pos+1,n,open+1,close)
n =int(input("enter no of paranthesis="))
str = [""] * 2 * n
Parenthesis(str, n)
```

DAY 2 Q5

```
def calculate(self, s):
    def update(op, v):
        if op == "+": stack.append(v)
        if op == "-": stack.append(-v)
        if op == "*": stack.append(stack.pop() * v)
        if op == "/": stack.append(int(stack.pop() / v))

    it, num, stack, sign = 0, 0, [], "+"
```

DAY 2 Q4

```
a=[]
b=[]
n=int(input("enter number of elements in list1"))
m=int(input("enter number of elements in list2"))
for i in range (1,n+1,1):
    e=int(input("enter elements of list1"))
    a.append(e)
print("list1",a)
for j in range (1,n+1,1):
    f=int(input("enter elements of list2"))
    b.append(f)
print("list2",b)
c=a+b
c.sort()
print("sorted list",c)
if a==[] and b==[]:
    print("output []")
```

DAY 2 Q3

```
test_string = input("enter the string")
print ("The original string is : " + test_string)
res = len(test_string.split())
print ("The number of words in string",res)
```