1) sWAP cASE

In [1]:
```
def swap_case(s):
    answer = ''
    for i in s:
        if(i.isupper()==True):
            answer += (i.lower())
        elif(i.islower()==True):
            answer += (i.upper())
        else:
            answer += i
    return answer

if __name__ == '__main__':
    s = input()
    result = swap_case(s)
    print(result)
```

```
HackerRank.com presents "Pythonist 2".
hACKERrANK.COM PRESENTS "pYTHONIST 2".
```

2) String Split and Join

In [2]:
```
def split_and_join(line):
    line = line.split()
    line = '-'.join(line)
    return line
    # write your code here

if __name__ == '__main__':
    line = input()
    result = split_and_join(line)
    print(result)
```

```
this is a string
this-is-a-string
```

3) What's Your Name?

In [3]:
```
def print_full_name(first, last):
    # Write your code here
    print("Hello " + first, last + "! You just delved into python.")

if __name__ == '__main__':
    first_name = input()
    last_name = input()
    print_full_name(first_name, last_name)
```

```
yashaswini
polamarasetti
Hello yashaswini polamarasetti! You just delved into python.
```

4) Mutations

In [4]:
```
def mutate_string(string, position, character):
    n = list(string)
    n[position] = character
    string = "".join(n)
    return string

if __name__ == '__main__':
    s = input()
    i, c = input().split()
    s_new = mutate_string(s, int(i), c)
    print(s_new)
```

```
"abracadabra"
5 k
"abrakadabra"
```

5) Find a string

In [6]:
```
def count_substring(string, sub_string):
    count = 0
    for i in range(len(string)-len(sub_string)+1):
        if (string[i:i+len(sub_string)] == sub_string):
            count += 1
    return count

if __name__ == '__main__':
    string = input().strip()
    sub_string = input().strip()

    count = count_substring(string, sub_string)
    print(count)
```

```
ABCDCDC
ABC
1
```

6) String Validators

In [7]:
```
if __name__ == '__main__':
    s = input()
    print(any(a.isalnum() for a in s))
    print(any(a.isalpha() for a in s))
    print(any(a.isdigit() for a in s))
    print(any(a.islower() for a in s))
    print(any(a.isupper() for a in s))
```

```
qA2
True
True
True
True
True
```

7) Text Alignment

In [9]:
```
#Replace all ______ with rjust, ljust or center.

thickness = int(input()) #This must be an odd number
c = 'H'

#Top Cone
for i in range(thickness):
    print((c*i).rjust(thickness-1)+c+(c*i).ljust(thickness-1))

#Top Pillars
for i in range(thickness+1):
    print((c*thickness).center(thickness*2)+(c*thickness).center(thickness*6

#Middle Belt
for i in range((thickness+1)//2):
    print((c*thickness*5).center(thickness*6))

#Bottom Pillars
for i in range(thickness+1):
    print((c*thickness).center(thickness*2)+(c*thickness).center(thickness*6

#Bottom Cone
for i in range(thickness):
    print(((c*(thickness-i-1)).rjust(thickness)+c+(c*(thickness-i-1)).ljust(
```

```
5
    H
   HHH
  HHHHH
 HHHHHHH
HHHHHHHHH
  HHHHH                 HHHHH
  HHHHH                 HHHHH
  HHHHH                 HHHHH
  HHHHH                 HHHHH
  HHHHH                 HHHHH
  HHHHH                 HHHHH
  HHHHHHHHHHHHHHHHHHHHHHHHH
  HHHHHHHHHHHHHHHHHHHHHHHHH
  HHHHHHHHHHHHHHHHHHHHHHHHH
  HHHHH                 HHHHH
  HHHHH                 HHHHH
  HHHHH                 HHHHH
  HHHHH                 HHHHH
  HHHHH                 HHHHH
  HHHHH                 HHHHH
                    HHHHHHHHH
                     HHHHHHH
                      HHHHH
                       HHH
                        H
```

8) Text Wrap

In [10]:
```
import textwrap

def wrap(string, max_width):
    for i in range(0,len(string)+1,max_width):
        result = string[i:i+max_width]
        if len(result) == max_width:
            print(result)
        else:
            return(result)

if __name__ == '__main__':
    string, max_width = input(), int(input())
    result = wrap(string, max_width)
    print(result)
```

```
ABCDEFGHIJKLIMNOQRSTUVWXYZ
4
ABCD
EFGH
IJKL
IMNO
QRST
UVWX
YZ
```

9) Designer Door Mat

In [11]:
```
x,y = map(int,input().split())
items = list(range(1,x+1,2))
items = items+items[::-1][1:]
for i in items:
    text= "WELCOME" if i == x else '.|.'*i
    print (text.center(y,'-'))
```

```
9 27
------------.|.------------
---------.|..|..|.---------
------.|..|..|..|..|.------
---.|..|..|..|..|..|..|.---
----------WELCOME----------
---.|..|..|..|..|..|..|.---
------.|..|..|..|..|.------
---------.|..|..|.---------
------------.|.------------
```

10) String Formatting

In [13]:
```
def print_formatted(number):
    # your code goes here
    width = len(bin(number)[2:])
    for i in range(1, number+1):
        deci = str(i)
        octa = oct(i)[2:]
        hexa = hex(i)[2:].upper()
        bina = bin(i)[2:]
        print(deci.rjust(width),octa.rjust(width),hexa.rjust(width),bina.rju
if __name__ == '__main__':
    n = int(input())
    print_formatted(n)
```

```
2
 1  1  1  1
 2  2  2 10
```

11) Alphabet Rangoli

In [14]:
```
def print_rangoli(size):
    # your code goes here
    import string
    design = string.ascii_lowercase
    L = []
    for i in range(n):
        s = "-".join(design[i:n])
        L.append((s[::-1]+s[1:]).center(4*n-3, "-"))

    print('\n'.join(L[:0:-1]+L))

if __name__ == '__main__':
    n = int(input())
    print_rangoli(n)
```

```
5
--------e--------
------e-d-e------
----e-d-c-d-e----
--e-d-c-b-c-d-e--
e-d-c-b-a-b-c-d-e
--e-d-c-b-c-d-e--
----e-d-c-d-e----
------e-d-e------
--------e--------
```

12) Capitalize!

In [ ]:
```
def solve(s):
    for x in s[:].split():
        s = s.replace(x, x.capitalize())
    return s
if __name__ == '__main__':
    fptr = open(os.environ['OUTPUT_PATH'], 'w')

    s = input()

    result = solve(s)

    fptr.write(result + '\n')

    fptr.close()
```

13) The Minion Game

In [24]:
```
def minion_game(string):
    # your code goes here
    player1 = 0;
    player2 = 0;
    str_len = len(string)
    for i in range(str_len):
        if s[i] in "AEIOU":
            player1 += (str_len)-i
        else :
            player2 += (str_len)-i

    if player1 > player2:
        print("Kevin", player1)
    elif player1 < player2:
        print("Stuart",player2)
    elif player1 == player2:
        print("Draw")
    else :
        print("Draw")

if __name__ == '__main__':
    s = input()
    minion_game(s)
```

```
BANANA
Stuart 12
```

14) Merge the Tools!

In [25]:

```
def merge_the_tools(string, k):
    # your code goes here
    temp = []
    len_temp = 0
    for item in string:
        len_temp += 1
        if item not in temp:
            temp.append(item)
        if len_temp == k:
            print (''.join(temp))
            temp = []
            len_temp = 0
if __name__ == '__main__':
    string, k = input(), int(input())
    merge_the_tools(string, k)
```

```
AABCAADD
3
AB
CA
```