

```

#001
num = int(input("Enter N: "))
text = ""
text1 = ""
half = ""
list = []
list1 = []
if num<0 or num>9:
    print("error")
else:
    for i in range(0,num+1):
        n = str(i)*((num-i)+(num-i)+1)

        for j in range(0,i):
            text += str(j)
            text1 = text[::-1]
        half = text + n + text1
        list.append(half)
        text = ""

    for r in range(len(list)):
        list1.append(list[-(r+1)])

    for p in range(len(list)):
        print(f"{list[p]}")

    for u in range(1,len(list1)):
        print(f"{list1[u]}")

```

Console Shell

```

Enter N: 0
0
>

```

Console Shell

```

Enter N: 1
000
010
000
>

```

Console Shell

```

Enter N: 2
00000
01110
01210
01110
00000
>

```

Console Shell

```

Enter N: 3
0000000
0111110
0122210
0123210
0122210
0111110
0000000
>

```

```

#002
num = int(input("Enter N: "))
text = ""
text1 = ""
half = ""
list = []
list1 = []
if num<0 or num>9:
    print("error")
else:
    for i in range(0,num+1):
        for j in range(0,i):
            text += str(j)
            text1 = text[::-1]
            half = (" "*(num-i))+text) + str(i) + text1
            list.append(half)
            text = ""

    for r in range(len(list)):
        list1.append(list[-(r+1)])

    for p in range(len(list)):
        print(f"{list[p]}")

    for u in range(1,len(list1)):
        print(f"{list1[u]}")

```

Console Shell

```

Enter N: 0
0

```

Console Shell

```

Enter N: 1
0
010
0

```

Console Shell

```

Enter N: 2
0
010
01210
010
0

```

Console Shell

```

Enter N: 3
0
010
01210
0123210
01210
010
0

```

```

#ข้อ3
import random
data = {}
foundWinner = False
def table():
    for i in range(1,7):
        print(f"{i} | {data.get(f'{i}1',' ')} | {data.get(f'{i}2',' ')} | {data.get(f'{i}3',' ')} | {data.get(f'{i}4',' ')} | {data.get(f'{i}5',' ')} | {data.get(f'{i}6',' ')} | ")
        print(f"   {1}   {2}   {3}   {4}   {5}   {6}")

def drop(y,type):
    for x in range(6,0,-1):
        if data.get(str(x)+str(y),False):
            continue
        else:
            if(type == 1):
                data[str(x)+str(y)]="x"
            elif(type == 2):
                data[str(x)+str(y)]="w"
            check(x,y)
            break

def check(x,y):
    global foundWinner
    #แนวตั้ง
    #แนวนอน

    check1 = data.get(str(x)+str(y),False)
    check2 = data.get(str(x)+str(y-1),False)
    check3 = data.get(str(x)+str(y-2),False)
    if(check1 == "x" and check2 == "x" and check3 == "x"):
        print("User Win")
        foundWinner = True
    elif(check1 == "w" and check2 == "w" and check3 == "w"):
        print("Computer Win")
        foundWinner = True

    #ล่างขึ้นบน
    check1 = data.get(str(x)+str(y),False)
    check2 = data.get(str(x)+str(y+1),False)
    check3 = data.get(str(x)+str(y+2),False)
    if(check1 == "x" and check2 == "x" and check3 == "x"):
        print("User Win")
        foundWinner = True
    elif(check1 == "w" and check2 == "w" and check3 == "w"):
        print("Computer Win")
        foundWinner = True

    #บน-กลาง-ล่าง
    check1 = data.get(str(x)+str(y),False)
    check2 = data.get(str(x)+str(y+1),False)

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check3 = data.get(str(x)+str(y-1),False)
if(check1 == "x" and check2 == "x" and check3 == "x"):
    print("User Win")
    foundWinner = True
elif(check1 == "w" and check2 == "w" and check3 == "w"):
    print("Computer Win")
    foundWinner = True

#อันนี้แนวนอนนะ
#ขวาไปซ้ายเลย
check1 = data.get(str(x)+str(y),False)
check2 = data.get(str(x-1)+str(y),False)
check3 = data.get(str(x-2)+str(y),False)
if(check1 == "x" and check2 == "x" and check3 == "x"):
    print("User Win")
    foundWinner = True
elif(check1 == "w" and check2 == "w" and check3 == "w"):
    print("Computer Win")
    foundWinner = True

#ซ้ายไปขวาเลย
check1 = data.get(str(x)+str(y),False)
check2 = data.get(str(x+1)+str(y),False)
check3 = data.get(str(x+2)+str(y),False)
if(check1 == "x" and check2 == "x" and check3 == "x"):
    print("User Win")
    foundWinner = True
elif(check1 == "w" and check2 == "w" and check3 == "w"):
    print("Computer Win")
    foundWinner = True

#กลางออกข้าง
check1 = data.get(str(x)+str(y),False)
check2 = data.get(str(x+1)+str(y),False)
check3 = data.get(str(x-1)+str(y),False)
if(check1 == "x" and check2 == "x" and check3 == "x"):
    print("User Win")
    foundWinner = True
elif(check1 == "w" and check2 == "w" and check3 == "w"):
    print("Computer Win")
    foundWinner = True

#แนวเฉียง
#เฉียงบนลง
check1 = data.get(str(x)+str(y),False)
check2 = data.get(str(x+1)+str(y-1),False)
check3 = data.get(str(x+2)+str(y-2),False)
if(check1 == "x" and check2 == "x" and check3 == "x"):
    print("User Win")
    foundWinner = True

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elif(check1 == "w" and check2 == "w" and check3 == "w"):
    print("Computer Win")
    foundWinner = True
#เจียงล่างขึ้นบน
check1 = data.get(str(x)+str(y),False)
check2 = data.get(str(x-1)+str(y+1),False)
check3 = data.get(str(x-2)+str(y+2),False)
if(check1 == "x" and check2 == "x" and check3 == "x"):
    print("User Win")
    foundWinner = True
elif(check1 == "w" and check2 == "w" and check3 == "w"):
    print("Computer Win")
    foundWinner = True
#เจียงบน-กลาง-ล่าง
check1 = data.get(str(x)+str(y),False)
check2 = data.get(str(x-1)+str(y+1),False)
check3 = data.get(str(x+1)+str(y-1),False)
if(check1 == "x" and check2 == "x" and check3 == "x"):
    print("User Win")
    foundWinner = True
elif(check1 == "w" and check2 == "w" and check3 == "w"):
    print("Computer Win")
    foundWinner = True

while True:
    table()
    while True:
        n = int(input("Enter number (1-6): "))
        if n > 6 or n < 1:
            print("error")
        else:
            drop(n,1)
            table()
            if(foundWinner):
                t = input("เล่นต่อหรือไม่? Y/N: ")

                if t == "Y":
                    data.clear()
                    foundWinner = False
                elif t == "N":
                    break
                else:
                    print("error")
                    break
            break
        computer = random.randint(1,6)
        drop(computer,2)
        table()
        if(foundWinner):

```

```

t = input("เล่นต่อหรือไม่? Y/N: ")

if t == "Y":
    data.clear()
    foundWinner = False
elif t == "N":
    break
else:
    print("error")
    break
break

if t != "Y":
    break

```

```

1|  |  |  |  |  |
2|  |  |  |  |  |
3|  |  |  |  |  |
4|  |  |  |  |  |
5| w|  | x|  |  |
6| w|  | x|  |  |
  1  2  3  4  5  6
Enter number (1-6): 3
User Win
1|  |  |  |  |  |
2|  |  |  |  |  |
3|  |  |  |  |  |
4|  |  | x|  |  |
5| w|  | x|  |  |
6| w|  | x|  |  |
  1  2  3  4  5  6
เล่นต่อหรือไม่? Y/N: 

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```

Enter number (1-6): 4
1|  |  |  |  |  |
2|  |  |  |  |  |
3|  |  |  |  | w|
4|  |  |  | x| x| w|
5| w|  | x| w| x| x|
6| w| w| x| x| w| x|
  1  2  3  4  5  6
Computer Win
1|  |  |  |  |  |
2|  |  |  |  | w|
3|  |  |  |  | w|
4|  |  | x| x| w|
5| w|  | x| w| x| x|
6| w| w| x| x| w| x|
  1  2  3  4  5  6
เล่นต่อหรือไม่? Y/N: 

```

```

#ข้อ4

data = [
    "*****",
    "*MM**",
    "*KIK*",
    "*IT**",
    "**L**"]

def genlist(text,pos):
    u = []
    #ขว้าง
    if data[int(pos.split(",")[0])+1][int(pos.split(",")[1])+1] == text:
        u.append(f"{int(pos.split(',')[0])+1},{int(pos.split(',')[1])+1}")

    #กลางล่าง
    if data[int(pos.split(",")[0])+1][int(pos.split(",")[1])+0] == text:
        u.append(f"{int(pos.split(',')[0])+1},{int(pos.split(',')[1])+0}")

    #ซ้ายล่าง
    if data[int(pos.split(",")[0])+1][int(pos.split(",")[1])-1] == text:
        u.append(f"{int(pos.split(',')[0])+1},{int(pos.split(',')[1])-1}")

    #กลางขวา
    if data[int(pos.split(",")[0])+0][int(pos.split(",")[1])+1] == text:
        u.append(f"{int(pos.split(',')[0])+0},{int(pos.split(',')[1])+1}")

    #กลางซ้าย
    if data[int(pos.split(",")[0])+0][int(pos.split(",")[1])-1] == text:
        u.append(f"{int(pos.split(',')[0])+0},{int(pos.split(',')[1])-1}")

    #ขวบน
    if data[int(pos.split(",")[0])-1][int(pos.split(",")[1])+1] == text:
        u.append(f"{int(pos.split(',')[0])-1},{int(pos.split(',')[1])+1}")

    #กลางบน
    if data[int(pos.split(",")[0])-1][int(pos.split(",")[1])+0] == text:
        u.append(f"{int(pos.split(',')[0])-1},{int(pos.split(',')[1])+0}")

    #ซ้ายบน
    if data[int(pos.split(",")[0])-1][int(pos.split(",")[1])-1] == text:
        u.append(f"{int(pos.split(',')[0])-1},{int(pos.split(',')[1])-1}")

    return u

list_K = []
list_M = []
list_I = []
list_T = []
list_L = []
answer2 = []

```

