In [5]:
```
import array
a = array.array("i",[1,2,3,4])
print(type(a))
```

```
<class 'array.array'>
```

Arrays

In [ ]:
```
```

In [6]:
```
a = array("i",[1,2,3,4])
print(type(a))
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Input In [6], in <cell line: 1>()
----> 1 a = array("i",[1,2,3,4])
      2 print(type(a))

TypeError: 'module' object is not callable
```

In [8]:
```
print(a[0])
```

```
1
```

In [9]:
```
print(a[1])
```

```
2
```

In [11]:
```
print(a[])
```

```
  Input In [11]
    print(a[])
            ^
SyntaxError: invalid syntax
```

In [12]:
```
print(a[:])
```

```
array('i', [1, 2, 3, 4])
```

In [13]:
```
print(a[2:4])
```

```
array('i', [3, 4])
```

In [14]:
```
print(a[0][0])
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Input In [14], in <cell line: 1>()
----> 1 print(a[0][0])

TypeError: 'int' object is not subscriptable
```

In [15]:
```
from array import *
arr = array('i',[1,2,3,4])
print(type(arr))
```

```
<class 'array.array'>
```

list

In [16]:
```
list1 = [1,2,3,4]
```

append

In [17]:
```
list1.append(10)
```

In [18]:
```
print(list1)
```

```
[1, 2, 3, 4, 10]
```

clear

In [19]:
```
list1.clear()
```

In [20]:
```
print(list1)
```

```
[]
```

copy

In [21]:
```
x = list1.copy
```

In [22]:
```
print(x)
```

```
<built-in method copy of list object at 0x000002FE29FA6CC0>
```

In [23]:
```
list1 = [1,2,3,4]
x = list1.copy()
print(x)
```

```
[1, 2, 3, 4]
```

count

In [24]:
```
list1.count('a')
```

Out[24]:
```
0
```

In [25]:
```
list1.count(1)
```

Out[25]:
```
1
```

pop

In [26]:
```
print(list1.pop())
```

```
4
```

In [27]:
```
# pop removes and returns the element
```

In [28]:
```
print(list1.pop(1))
```

```
2
```

In [29]:
```
print(list1)
```

```
[1, 3]
```

reverse

In [30]:
```
print(list1.reverse())
```

```
None
```

In [31]:
```
list1.reverse()
```

In [32]:
```
print(list1)
```

```
[1, 3]
```

In [33]:
```
list1.reverse()
print(list1)
```

```
[3, 1]
```

sort

In [34]:
```
list1.sort()
print(list1)
```

```
[1, 3]
```

In [35]:
```
# only homogenous elements are sorted
```

In [36]:
```
lst = [1,5,6,2,8,3]
print(lst.sort(reverse=True))
```

```
None
```

In [37]:
```
print(lst)
```

```
[8, 6, 5, 3, 2, 1]
```

remove

In [38]:
```
# It will remove the 1st occurrence of element
```

In [39]:
```
lst.remove(2)
```

In [40]:
```
print(lst)
```

```
[8, 6, 5, 3, 1]
```

In [55]:
```
n = int(input())
for i in range(n+1):
    for k in range(n-i):
        print(" ",end=" ")
    for j in range(2*i-1):
        print(" *",end="")
    print()
```

```
4
       *
     * * *
   * * * * *
 * * * * * * *
```

errors

and Exception

In [56]:
```
# error is of two types. logical and syntactical errors
# we are responsible for this type of errors
# logical errors occur at run time
# and syntactical errors occur at compile time
```

In [57]:
```
# try:
    x = 1/52
except EOFError:
    print("end of file")
# except IMPORT
```

```
  Input In [57]
    except IMPORT
                 ^
SyntaxError: invalid syntax
```

In [58]:
```
# https://github.com/meh-sudhanshu/RGM
```

In [ ]: