**Justin\_Array\_1286.**  **Iterator for Combination**

**Concept:**

轉換成 2 進制，combinationLength 是幾 2 進制就要有幾個1

Ex: k = 2 ==> 3: 011, 5: 101 6: 110 (len(characters) = 3)

取 011, 101, 110 之後 for j in range(n)

有一個地方記錄起來 加到 self.combinations 裡

**Code:**

class CombinationIterator:

def \_\_init\_\_(self, characters: str, combinationLength: int):

self.combinations = []

n, k = len(characters), combinationLength

for i in range(1 << n):

if bin(i).count('1') == k:

#print("n, i = ", n," ", i)

curr = [characters[j] for j in range(n) if i & (1 << n - j - 1)]

#print(curr)

self.combinations.append(''.join(curr))

#print(self.combinations)

def next(self) -> str:

return self.combinations.pop()

def hasNext(self) -> bool:

return self.combinations

# Your CombinationIterator object will be instantiated and called as such:

# obj = CombinationIterator(characters, combinationLength)

# param\_1 = obj.next()

# param\_2 = obj.hasNext()