

# Permutations-I(Prefer this for permute)

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```
def permutel(n, r):
    visited = [0] * n
    permuteUtil(n, r, visited, 1)

def permuteUtil(n, r, visited, ele):
    if ele > r:
        for ele in visited:
            if ele != 0:
                print(ele, end='')
            else:
                print('-', end='')
        print()
        return

    for i in range(n):
        if visited[i] == 0:
            visited[i] = ele
            permuteUtil(n, r, visited, ele + 1)
            visited[i] = 0

permutel(4,2)
```

# Here we give chance to the object to choose every vacant box. This is just like formula  
#  $n.(n-1).....(n-r+1)$  ie 1st objects have n boxes to capture and then n-1 and subsequent boxes have one box less.

# Basically boxes are choice(options) and r is the options inbox. So option is in loop and  
# level is passed as argument.

39,40,77,216,46,47