

Problem 6: Given N and K, where N is the sequence of numbers from 1 to N([1,2,3..... N]) find the Kth permutation sequence.

```
def getPermutation(N, K):  
    numbers = list(range(1, N+1))  
    result = "
```

```
def findPermutation(n, k):  
    nonlocal numbers, result  
    if n == 1:  
        result += str(numbers[0])  
        return
```

```
    factorial = 1  
    for i in range(2, n):  
        factorial *= i
```

```
    index = (k - 1) // factorial  
    result += str(numbers[index])  
    numbers.pop(index)  
    k -= index * factorial
```

```
    findPermutation(n - 1, k)
```

```
findPermutation(N, K)
```

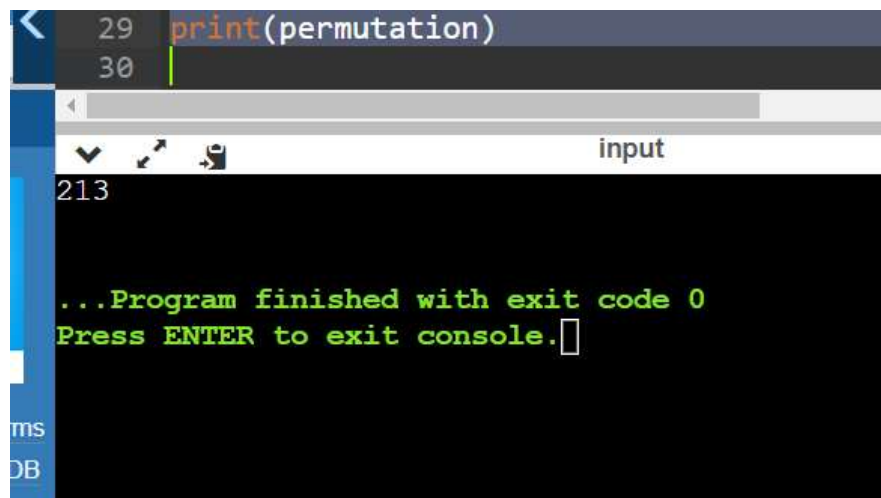
```
return result
```

```
N = 3
```

```
K = 3
```

```
permutation = getPermutation(N, K)
```

```
print(permutation)
```



The screenshot shows a code editor with two lines of code: line 29 contains `print(permutation)` and line 30 is empty. Below the editor is a console window titled 'input'. The console displays the output '213' on the first line. The second line shows a green message: '...Program finished with exit code 0'. The third line shows a green prompt: 'Press ENTER to exit console.' followed by a cursor icon.

```
29 print(permutation)
30
input
213
...Program finished with exit code 0
Press ENTER to exit console.
```