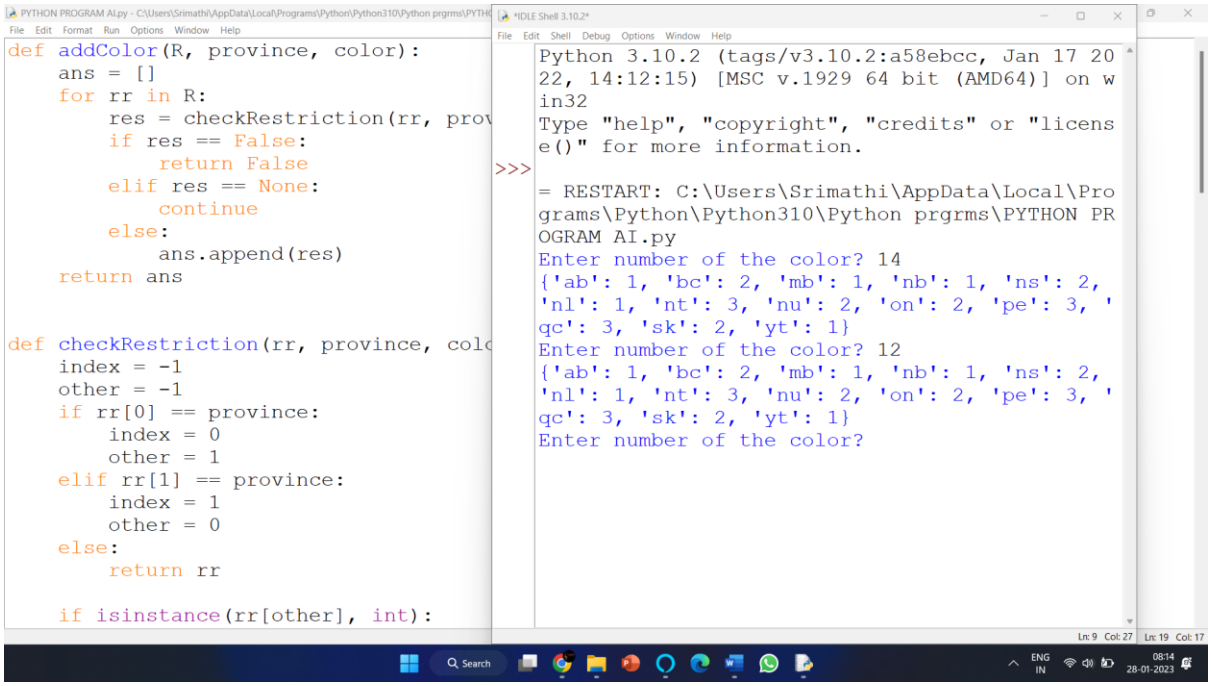
Map Coloring to implement CSP:



```
def addColor(R, province, color):
    ans = []
    for rr in R:
        res = checkRestriction(rr, prov
        if res == False:
            return False
        elif res == None:
            continue
        else:
            ans.append(res)
    return ans


def checkRestriction(rr, province, colo
    index = -1
    other = -1
    if rr[0] == province:
        index = 0
        other = 1
    elif rr[1] == province:
        index = 1
        other = 0
    else:
        return rr

    if isinstance(rr[other], int):
```

```
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 20
22, 14:12:15) [MSC v.1929 64 bit (AMD64)] on w
in32
Type "help", "copyright", "credits" or "licens
e()" for more information.
>>>
= RESTART: C:\Users\Srimathi\AppData\Local\Pro
grams\Python\Python310\Python prgrms\PYTHON PR
OGRAM AI.py
Enter number of the color? 14
{'ab': 1, 'bc': 2, 'mb': 1, 'nb': 1, 'ns': 2,
'nl': 1, 'nt': 3, 'nu': 2, 'on': 2, 'pe': 3, '
qc': 3, 'sk': 2, 'yt': 1}
Enter number of the color? 12
{'ab': 1, 'bc': 2, 'mb': 1, 'nb': 1, 'ns': 2,
'nl': 1, 'nt': 3, 'nu': 2, 'on': 2, 'pe': 3, '
qc': 3, 'sk': 2, 'yt': 1}
Enter number of the color?
```