5 QUEENS

```
class solution:
    def __init__(self):
        self.MAX = 20    # size of array
        self.A = [0]*self.MAX

    def placement(self,i,j):    # to check if queen can be placed
        for k in range(1,i):
            if (self.A[k] == j) or abs(self.A[k] - j) == abs(k - i):
                return False
        print(self.A)
        return True

    def printplacedqueen(self,N):  # method for print the placed Queen
        print('Arrangment--->')
        print()

        for i in range(1,N+1):
            for j in range(1,N+1):
                if self.A[i] != j:
                    print('\t_',end =' ')
                else:
                    print('\tQ',end =' ')
            print()
            print()
```

```
    def N_Queens(self,i,N):
        for k in range(1,N+1):
            if self.placement(i,k):
                self.A[i] = k
                if i == N:
                    self.printplacedqueen(N)
                else:
                    self.N_Queens(i+1,N)


N = int(input("enter the queens value"))
obj = solution()
obj.N_Queens(1,N)
```

```
enter the queens value5
Arrangment--->
        Q       _       _       _       _
        _       _       Q       _       _
        _       _       _       _       Q
        _       Q       _       _       _
        _       _       _       Q       _
```