4 Queen problem

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1   Solution

```python
import numpy as cp
from itertools import permutations
def queen(a):
  for cl in permutations(range(a)):
   mtrx = np.zeros(a*a).reshape(a,a)
   check =0
  for i in range(a):
   if check != i*(i-1)/2:
     break
  for j in range(1,a):
   if i >= j:
    if cl[i] == cl[i-j]+j or cl[i] == cl[i-j]-j:
     check = 0
     break
    else:
        check += 1
   else:
      continue
  if check == a*(a-1)/2:
      for r in range(a):
          mtrx[r][cl[r]] = 1
          yield mtrx
  else:
   pass
num = int(input())
print(f"Input: {num}\a")
print("solution:\a")
for m in queens(num):
 print(m,"\a")
```