def amn\_ast(safhe\_shatranj, radif, soton):

for i in range(radif):

if safhe\_shatranj[i] == soton or \

safhe\_shatranj[i] - i == soton - radif or \

safhe\_shatranj[i] + i == soton + radif:

return False

return True

def vazir(safhe\_shatranj, radif, n):

if radif >= n:

return True

for soton in range(n):

if amn\_ast(safhe\_shatranj, radif, soton):

safhe\_shatranj[radif] = soton

if vazir(safhe\_shatranj, radif + 1, n):

return True

safhe\_shatranj[radif] = -1

return False

def javab(safhe\_shatranj):

n = len(safhe\_shatranj)

for radif in range(n):

line = ""

for soton in range(n):

if safhe\_shatranj[radif] == soton:

line += "Q "

else:

line += ". "

print(line)

print()

def hasht\_vazir():

n = 8

safhe\_shatranj = [-1] \* n

if vazir(safhe\_shatranj, 0, n):

javab(safhe\_shatranj)

else:

print("No solution exists.")

hasht\_vazir()