#include <iostream>

#include<stdlib.h>

using namespace std;

int a[100];

int place(int pos)

{int i;

for(i=0;i<pos;i++)

{

if(a[pos]==a[i] or (abs(a[pos]-a[i])==abs(pos-i)))

return 0;

}

return 1;

}

void printval(int n)

{

int i,j;

for(i=0;i<n;i++)

{

for(j=0;j<n;j++)

{

if(a[j]==i)

{

cout<<"Q ";

}

else

{

cout<<"\* ";

}

}

cout<<endl;

}

}

void placequeens(int n)

{

int k=0;

a[k]=0;

while(k!=-1)

{ while(a[k]<n and!place(k))

{

a[k]++;

}

if(a[k]<n)

{

if(k==n-1)

{

printval(n);

return;

}

else

{

k++;a[k]=0;

}

}

else

{

k--;

a[k]++;

}

}

}

int main()

{

int n;

cout<<"enter the number of queens"<<endl;

cin>>n;

if(n<=3)

cout<<"cannot place "<<n<<" queens in "<<n<<"\*"<<n<<" chess board"<<endl;

else

placequeens(n);

return 0;

}