#include<stdio.h>

#include<stdlib.h>

int \*board,scnt=1;

void display(int n)

{

int i,j;

for(i=1;i<=n;i++)

{

for(j=1;j<=n;j++)

{

if(board[i]==j)

{

printf("Q ");

}

else

{

printf("0 ");

}

}

printf("\n");

}

}

void NQueen(int k,int n) //k=Queen no. & n=no. of queens

{

int i; //i=column no

for(i=1;i<=n;i++)

{

if(Place(k,i))

{

board[k] = i;

if(k == n)

{

printf("\nSolution no: %d\n",scnt);

display(n);

scnt++;

}

else

{

NQueen(k+1,n);

}

}

}

}

int Place(int k,int i)

{

int j;

for(j=1;j<=k-1;j++)

{

if((board[j] == i) || (abs(board[j]-i) == abs(j-k)))

{

return 0;

}

}

return 1;

}

int main()

{

int n=0,i,j;

printf("Enter no. of queens for the problem:\n");

scanf("%d",&n);

if(n<4)

{

printf("There is no solution for n<4 queen problem\n");

return 0;

}

board = (int\*)malloc(n\*sizeof(int));

NQueen(1,n);

for(i=1;i<=n;i++)

{

printf("%d" ,board[i]);

}

return 0;

}

------------------------------------------------------------------------------------------------------------------------

OUTPUT:-

