**N Queen's problem using Backtracking**

**Design and implement C/C++ Program for N Queen's problem using Backtracking.**

#include<stdio.h>

#include<math.h>

int x[10];

void main( )

{

int k, i, j, n, count=1;

int place(int);

printf("Enter the number of Queens\n");

scanf("%d",&n);

if(n==0 || n==2 || n==3 )

printf("No Solution");

else

k=1;

x[1]=0;

while(k)

{

x[k]= x[k]+1;

while( ( x[k] <=n) && (!place(k) ) )

x[k]= x[k]+1;

if( x[k]<=n )

{

if(k==n)

{

printf("Solution %d \n",count++);

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

{

for ( j=1; j<x[i]; j++ )

printf(" \* ");

printf(" Q" );

for ( j=x[i]+1; j<=n; j++ )

printf(" \* ");

printf(" \n" );

}

}

else

{

k=k+1;

x[k]=0;

}

}

else

k=k-1;

}

}

int place( int p)

{

int i;

for ( i=1; i<=(p-1); i++ )

if((x[i]==x[p]) || ((abs(x[i]-x[p]))==(abs(i-p))))

return 0;

return 1;

}

OUTPUT:

