C Program to Implement N Queen's Problem using Backtracking

```
#include<stdio.h>
#include<math.h>
int a[30],count=0;
int place(int pos) {
        int i;
        for (i=1;i<pos;i++) {
                if((a[i]==a[pos])||((abs(a[i]-a[pos])==abs(i-pos))))
                  return 0;
        }
        return 1;
}
void print_sol(int n) {
        int i,j;
        count++;
        printf("\n\nSolution #%d:\n",count);
        for (i=1;i<=n;i++) {
                for (j=1;j<=n;j++) {
                        if(a[i]==j)
                           printf("Q\t"); else
                           printf("*\t");
                }
                printf("\n");
        }
}
void queen(int n) {
        int k=1;
        a[k]=0;
        while(k!=0) {
                a[k]=a[k]+1;
                while((a[k]<=n)&&!place(k))
                  a[k]++;
                if(a[k]<=n) {
                        if(k==n)
                           print_sol(n); else {
                                k++;
                                a[k]=0;
                        }
                } else
                  k--;
        }
}
int main(){
        int i,n;
        printf("Enter the number of Queens\n");
        scanf("%d",&n);
        queen(n);
        printf("\nTotal solutions=%d",count);
        return 0;}
```