```c
//n-queen
#include<stdio.h>
#include<stdlib.h>
#include<math.h>
int a[50],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) {
```

```c
         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 n;
     printf("Enter the number of Queens :- ");
     scanf("%d",&n);
     queen(n);
     printf("\nTotal solutions=%d",count);
     return 0;
}
```

```
Enter the number of Queens :- 4


Solution 1 :
-       Q       -       -
-       -       -       Q
Q       -       -       -
-       -       Q       -




Solution 2 :
-       -       Q       -
Q       -       -       -
-       -       -       Q
-       Q       -       -


Total solutions=2
Process returned 0 (0x0)    execution time : 1.903 s
Press any key to continue.
```