Week 10: Stack

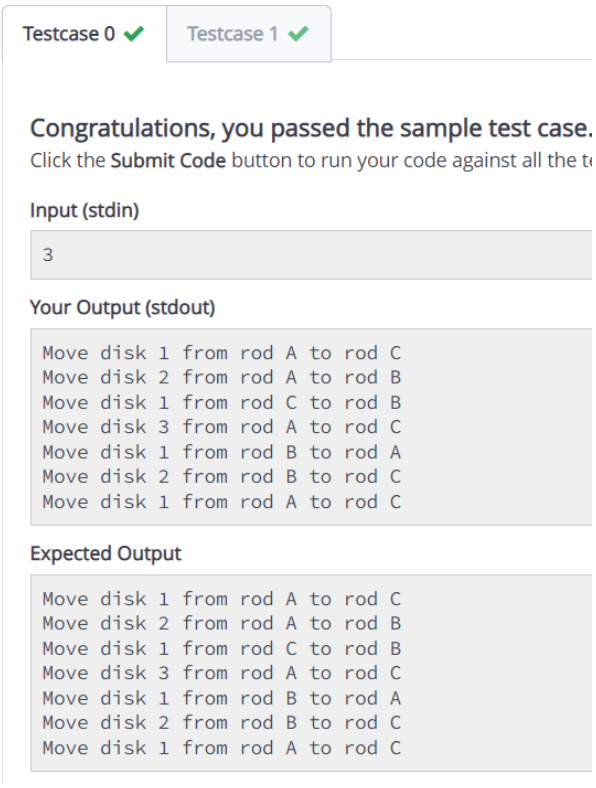
Aim: Using a helper stick (peg), shift all rings from peg A to peg B using peg C.
All rings are initally placed in ascending order, smallest being on top.
No bigger ring can be placed over a smaller ring.

Program:

```
#include <cmath>
#include <cstdio>
#include <vector>
#include <iostream>
#include <algorithm>
using namespace std;

    void towerOfHanoi(int n , char A, char B , char C)
    {
        if(n == 0)
            return;
        towerOfHanoi(n-1,A,C,B);
        cout<<"Move disk "<< n <<" from rod "<<A<<" to rod "<<C<<endl;
        towerOfHanoi(n-1 ,B,A,C);
    }
int main() {
    /* Enter your code here. Read input from STDIN. Print output to STDOUT */
    int n;
    cin>>n;
    towerOfHanoi(n,'A','B','C');
    return 0;
}
```

Input & Output:



Conclusion: From the above Program I learned to Solve the famous Tower of Hanoi Problem