How to draw a recursive tree

To solve a particular problem , that you know can be divided into further subproblems , can easily be solved by first drawing its recursive tree .

Lets understand how to make a recursive tree with the help of an example :

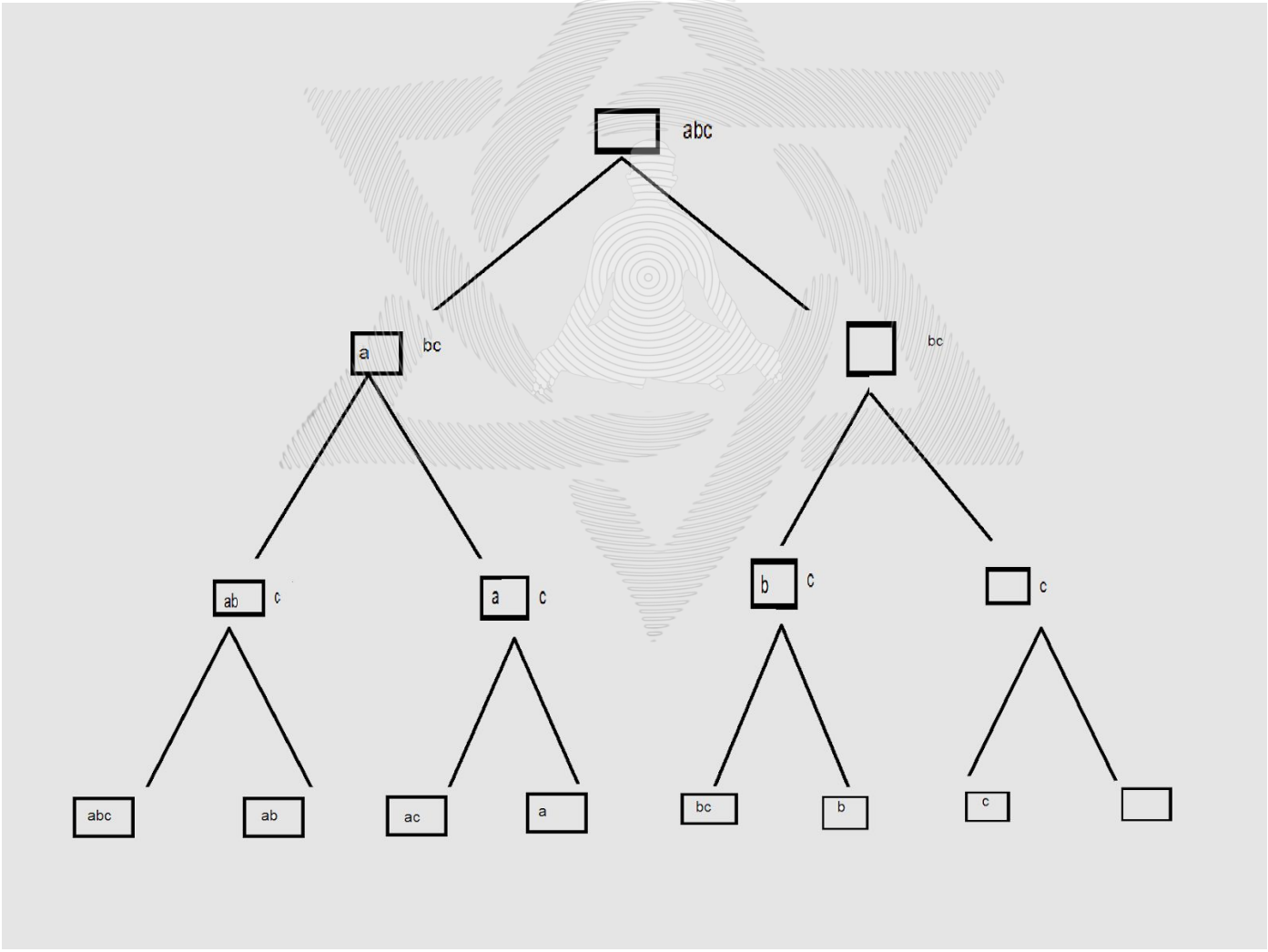
Print all the contiguous substrings of a given string.

Input : abc

Output : “a” , “b” , “c” , “ab” , “bc” , “abc” , “null” .

Solution :

Consider the following recursive tree



```cpp
#include <iostream>
#include<bits/stdc++.h>
using namespace std;
void solve(string ip,string op)
{
    if(ip.length()==0)
    {
        cout<<op<<" ";
        return;
    }
    string op1=op;
    string op2=op;
    op2.push_back(ip[0]);
    ip.erase(ip.begin());
    solve(ip,op2);
    solve(ip,op1);
    return;
}
int main() {
    string ip;
    cin>>ip;
    string op="";
    solve(ip,op);
    return;
}
```