**树的数据生成器**

保证数据为一棵随机树

### **CODE:**

#include<iostream>

#include<cstdio>

#include<algorithm>

#include<ctime>

#include<cstring>

#include<cstdlib>

using namespace std;

int a[10005],e[10005][2];int n = 1000;bool flag[10005];

int main() {

freopen("testdata.in","w",stdout);

printf("%d\n",n);

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

a[i] = rand() % n + 1;

while(flag[a[i]])

a[i] = rand() % n + 1;

flag[a[i]] = 1;

}

for(int i = 2 ; i <= n ; i++) {//指定n-1条边

e[i-1][0] = a[i];

e[i-1][1] = a[rand() % (i - 1) + 1];

}

memset(flag,0,sizeof(flag));

for(int i = 1 ; i < n ; i++) {//随机输出树

int x = rand() % (n - 1) + 1;

while(flag[x])

x = rand() % (n - 1) + 1;

flag[x] = 1;

int f = rand() % 2;

if(f) printf("%d %d\n",e[x][0],e[x][1]);

else printf("%d %d\n",e[x][1],e[x][0]);

}

return 0;

}