```cpp
#include<bits/stdc++.h>
using namespace std;
const char nl = '\n';
    typedef long long ll;
    typedef long double ld;
using i64 = unsigned long long;
using i32 = unsigned;
using i128 = unsigned __int128;
    #define all(x) (x).begin(), (x).end()
void solve(){
string s;
cin >> s;
map<char,int> mp;
for (auto e : s){
    mp[e]++;
}
string ans;
vector<int> c(26);
for(auto e : s )
{

    if(ans.empty()){
        ans.push_back(e);
        c[e - 'a'] = 1;
        mp[e]--;
        continue;

    }

while( !ans.empty() &&ans.back() < e && !c[e - 'a'] && mp[ans.back()]){
char k = ans.back();

c[k - 'a'] = 0;
ans.pop_back();

}

if(!c[e - 'a']){
    ans.push_back(e);
c[e - 'a'] = 1;
    }
mp[e]--;
}
cout << ans << nl;
}


int main(){
ios::sync_with_stdio(0),cin.tie(0),cout.tie(0);
int t = 1;
// cin >> t;
while(t--){
    solve();
}
    return 0;
```

```
    }
```