#include<bits/stdc++.h>

using namespace std;

vector<vector<int> > graph;

void topo\_dfs(int src, vector<bool> &visited, stack<int> &st){

visited[src] = true;

for(auto x: graph[src]){

if(visited[x]==false){

topo\_dfs(x,visited,st);

}

}

st.push(src);

}

int main(){

int n;

int e;

cin>>n>>e;

graph.resize(n);

for(int i=0;i<e;i++){

int x,y;

cin>>x>>y;

graph[x].push\_back(y);

}

vector<bool> visited(n,false);

stack<int> st;

for(int i=0;i<n;i++){

if(visited[i]==false){

topo\_dfs(i,visited,st);

}

}

while(!st.empty()){

cout<<st.top()<<" ";

st.pop();

}

}