#include<bits/stdc++.h>

using namespace std;

vector<vector<int> > graph;

vector<int> topo\_bfs(vector<int> &indeg){

queue<int> q;

vector<int> res;

for(int i=0;i<indeg.size();i++){

if(indeg[i]==0){

q.push(i);

}

}

while(!q.empty()){

int top = q.front();

res.push\_back(top);

q.pop();

for(auto x: graph[top]){

indeg[x]--;

if(indeg[x]==0){

q.push(x);

}

}

}

return res;

}

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);

vector<int> indeg(n,0);

for(int i=0;i<graph.size();i++){

for(auto x: graph[i]){

indeg[x]++;

}

}

vector<int> res = topo\_bfs(indeg);

for(auto x: res){

cout<<x<<" ";

}

}