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| --- |
| #include <algorithm> |
|  | #include <iostream> |
|  | #include <vector> |
|  | using namespace std; |
|  |  |
|  | int main() { |
|  | int N, M; |
|  | while (cin >> N >> M) { |
|  | vector<pair<int, int>> v(N); |
|  | for (int i = 0; i < N; i++) v[i].second = i; |
|  | for (int i = 0; i < M; i++) { |
|  | int x, y; |
|  | cin >> x >> y; |
|  | v[x].first++; v[y].first++; |
|  | } |
|  | sort(v.begin(), v.end()); |
|  |  |
|  | int ret = 0, tot = M\*2; |
|  | for (int i = v.size()-1; tot > 2\*N-2; i--) { |
|  | int amt = min(tot-(2\*N-2), v[i].first-1); |
|  | tot -= amt; |
|  | v[i].first -= amt; |
|  | ret++; |
|  | } |
|  | sort(v.begin(), v.end()); |
|  |  |
|  | cout << ret << endl; |
|  | cout << N << ' ' << N-1 << endl; |
|  | if (N == 2) { cout << "0 1" << endl; continue; } |
|  | vector<int> st; |
|  | int i; |
|  | for (i = 0; v[i].first == 1; i++) { |
|  | st.push\_back(v[i].second); |
|  | } |
|  | for (; i < v.size(); i++) { |
|  | for (int j = 0; j < v[i].first-(i+1 < v.size()); j++) { |
|  | cout << v[i].second << ' ' << st.back() << endl; |
|  | st.pop\_back(); |
|  | } |
|  | st.push\_back(v[i].second); |
|  | } |
|  | } |
|  | } |