#include <bits/stdc++.h>

using namespace std;

vector<vector<int>> mergeOverlappingIntervals(vector<vector<int>> &arr) {

int n = arr.size(); // size of the array

//sort the given intervals:

sort(arr.begin(), arr.end());

vector<vector<int>> ans;

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

// if the current interval does not

// lie in the last interval:

if (ans.empty() || arr[i][0] > ans.back()[1]) {

ans.push\_back(arr[i]);

}

// if the current interval

// lies in the last interval:

else {

ans.back()[1] = max(ans.back()[1], arr[i][1]);

}

}

return ans;

}

int main()

{

vector<vector<int>> arr = {{1, 3}, {8, 10}, {2, 6}, {15, 18}};

vector<vector<int>> ans = mergeOverlappingIntervals(arr);

cout << "The merged intervals are: " << "\n";

for (auto it : ans) {

cout << "[" << it[0] << ", " << it[1] << "] ";

}

cout << endl;

return 0;

}