646. Maximum Length of Pair Chain

Related Topics

Dynamic Programming

Similar Questions

Longest Increasing SubsequenceIncreasing Subsequences

You are given n pairs of numbers. In every pair, the first number is always smaller than the second number.

Now, we define a pair `(c, d)` can follow another pair `(a, b)` if and only if `b < c`. Chain of pairs can be formed in this fashion.

Given a set of pairs, find the length longest chain which can be formed. You needn't use up all the given pairs. You can select pairs in any order.

Example 1:

```
Input: [[1,2], [2,3], [3,4]]

Output: 2

Explanation: The longest chain is [1,2] -> [3,4]
```

Note:

1. The number of given pairs will be in the range [1, 1000].


```
class Solution {
public:
static  bool func(vector<int> &a, vector<int>&b)
{
```

```cpp
        return a[0]<b[0];
    }

int findLongestChain(vector<vector<int>>& pairs) {
    int n = pairs.size();
    sort(pairs.begin(),pairs.end(),func);
    int dp[n];
    for(int i=0;i<n;i++) dp[i]=1;
    for(int i=1;i<n;i++)
    {
        for(int j=0;j<i;j++)
        {
            if(pairs[i][0]>pairs[j][1] && dp[i]<dp[j]+1)
            {
                dp[i] = dp[j]+1;
            }
        }
    }
    int max_val = -1;
    for(int i=1;i<n;i++)
    {
        max_val = max(max_val,dp[i]);
    }
    return max_val;
}
};
```