354. Russian Doll Envelopes

Hard 937 35 Add to List Share

You have a number of envelopes with widths and heights given as a pair of integers `(w, h)`. One envelope can fit into another if and only if both the width and height of one envelope is greater than the width and height of the other envelope.

What is the maximum number of envelopes can you Russian doll? (put one inside other)

Note:
Rotation is not allowed.

Example:

```
Input: [[5,4],[6,4],[6,7],[2,3]]
Output: 3
Explanation: The maximum number of envelopes you can Russian doll is 3 ([2,3] => [5,4] => [6,7]).
```

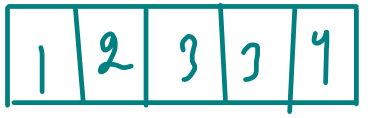
sort data according to width and do LIS on Height.

data: [4,5], [4,6], [6,7], [2,3], [1,1]
simple sort on width: [1,1], [2,3], [4,5], [4,6], [6,7]

do LIS over height:

it is wrong ans because (4,5) and (4,6) have equal width so (4,6) ke ander aap (4,5) ko nahi dalskte ho.
sol: agar equal width hai to revser sort krdo

Modified sort on width: [1,1], [2,3], [4,6], [4,5], [6,7]



Sorting code for both language: simple sort (this - other) or reverse sort (other - this) and for C++ : just replace '-' with '<'

```
for c++:  sort(arr.begin(),arr.end(),[](vector<int>& a,vector<int>& b){
              return a[0] < b[0] || (a[0] == b[0] && b[1] < a[1]) ;
          });

for java: Arrays.sort(envelopes,(int[] a, int[] b)->{
              if(a[0] == b[0])
                  return b[1] - a[1];
              else
                  return a[0] - b[0];
          });
```