Presentation outline

Mainly problem of Uva 459 Is to find the number of subgraphs, use the union search to find, I decide use the tree to slove

Frist to talking about **union-find algorithm**

**union-find algorithm**: Divide n objects with numbers from 1 to n into disjoint sets. In each set, select one of the elements to represent the set. In this set, the operations of the union search set are: initialization, merging, and searching.

This article introduces the union search collection more comprehensively:

 (1) The basic operation of union search.

 (2) Optimization of union search: merging and path compression.

 (3) Take the right and check the collection.

The basic application of the union check set is the set problem; after adding the weight, the merge and query optimization of the union check set can be used to perform efficient operations on the specific application represented by the weight.

1. Make The number of the person corresponding to the node int data
2. Make The rank corresponding to the node int rank
3. Make The node corresponds to the parent index int parent
4. make data x y
5. Initialize and find the tree void MAKESET(Tree t[])
6. Find the set number in the subtree where x is located int FINDSET(Tree t[],int x)
7. Merge the subtrees where x and y are located void UNION(Tree t[],int x,int y)