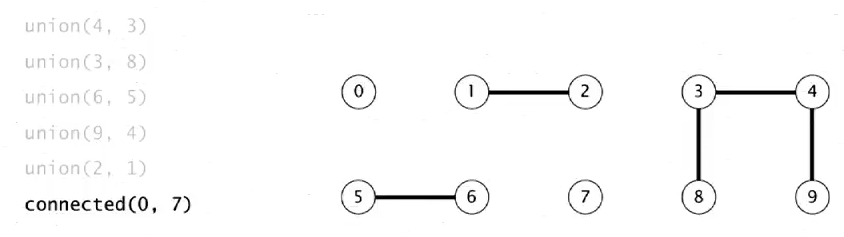
Dynamic Connectivity

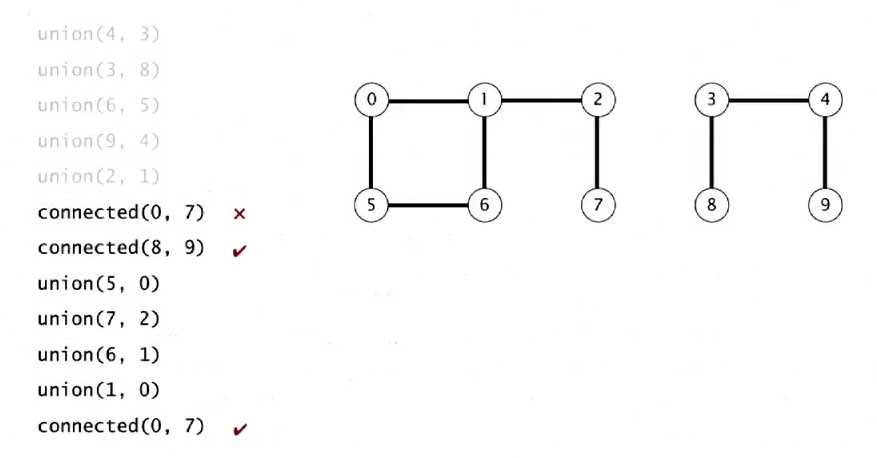
We will look at 2 classic algorithms here, quick find and quick union. This doesn’t find actually the path between the two objects; it just answers if there is a path or not.

* Given a Set of N objects:
  + **Union Command**: Connect 2 object.
  + **Find/connected query**: is there a path connecting two objects.

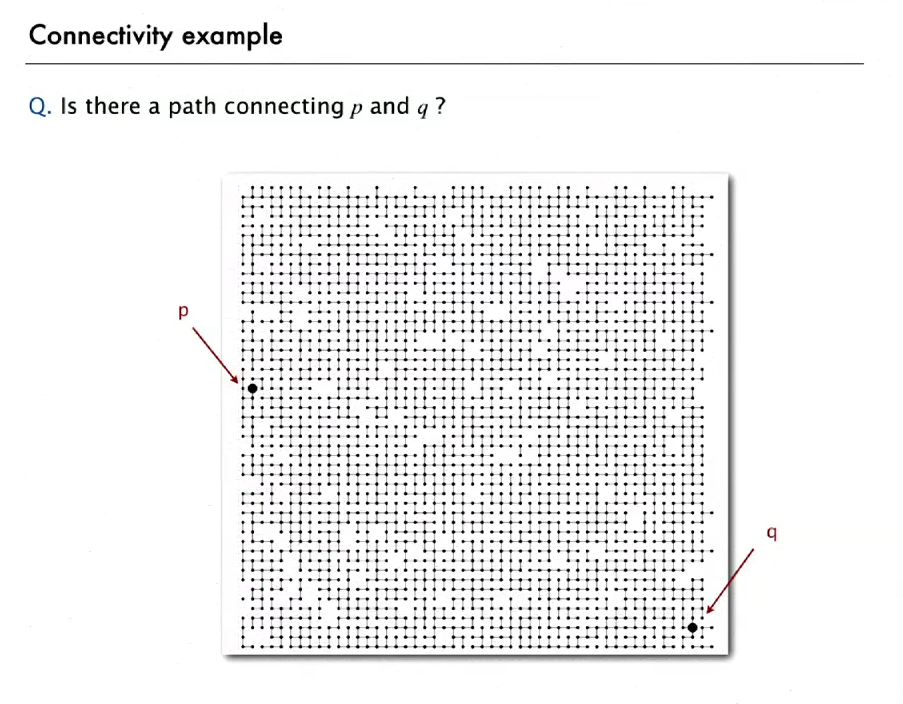
**Example:**



It will return false as 0 and 7 isn’t connected.

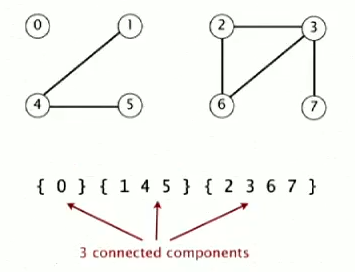


But in this case, it will return true, since both are connected

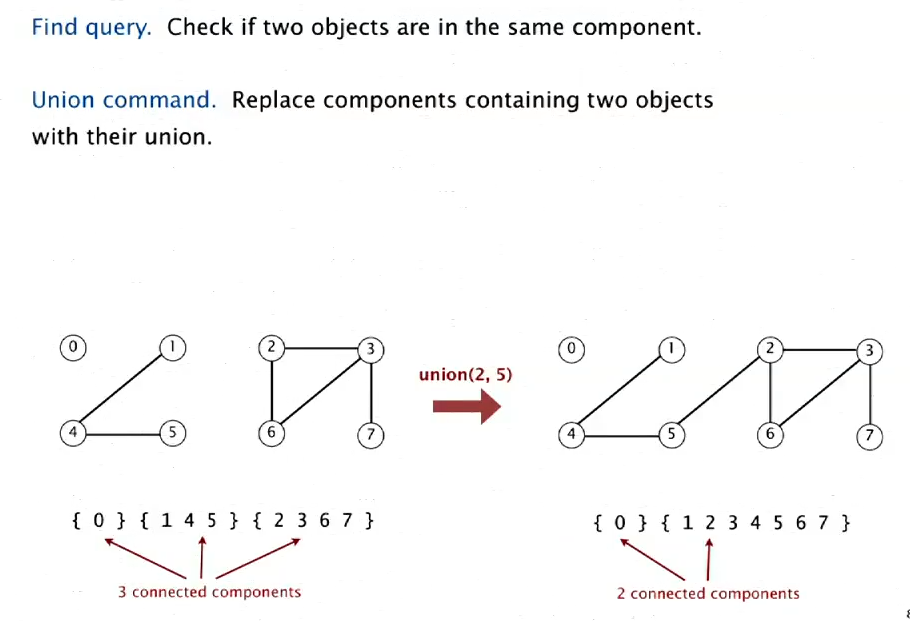


Practical Example

* **Connected Components:** Maximal set of objects that are mutually connected.

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* **Implementing the operations**

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