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CargoExplanation

First we create a new Node object, which stores the query, and the index of the query.In the algorithm, we will continue to update these two values.

We construct a function ‘compare to’ to sort nodes.The rule is: first sort by collect, if the same, then sort by index

Then we construct a query to save the nodes, all nodes are saved as above.

We construct the function addNode to do the binary search, so we can add the node into the right position.

Then we get the new order of query indexes in nodes after sorting.

Then we calculate the query that has been executed up to the current query index, in fact, some of the previous queries in the queries cannot be executed because they have not yet reached that place.