40 Combination Sum II - 13/08/24 (medium)

40. Combination Sum II

Medium | Topics | Companies

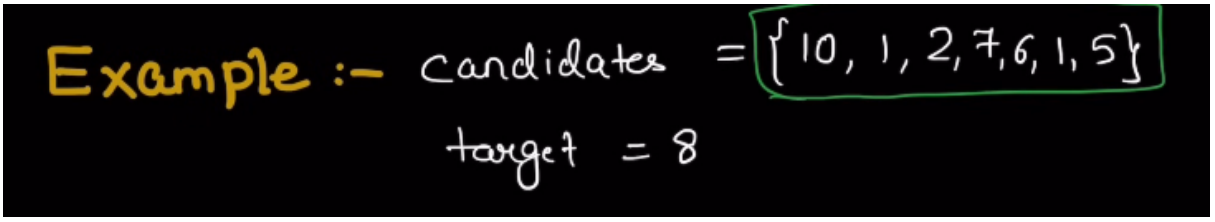
Given a collection of candidate numbers (`candidates`) and a target number (`target`), find all unique combinations in `candidates` where the candidate numbers sum to `target`.

Each number in `candidates` may only be used **once** in the combination.

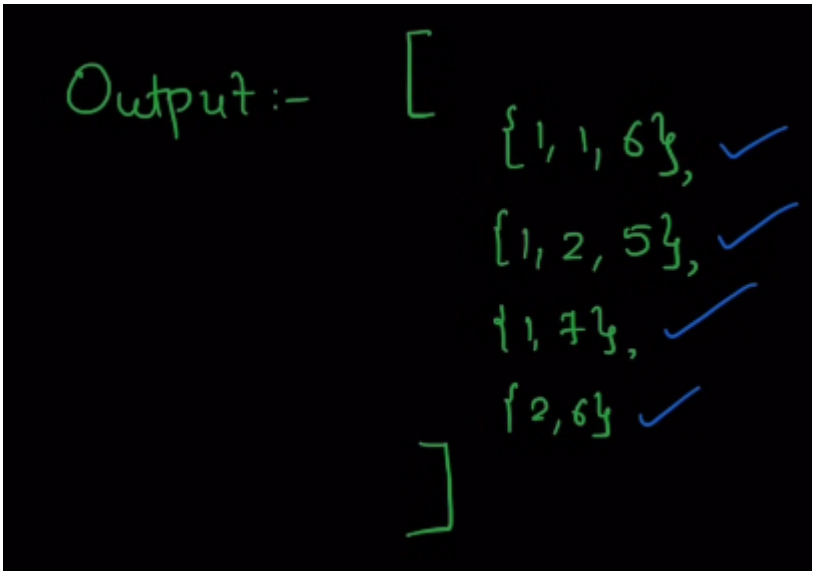
Note: The solution set must not contain duplicate combinations.

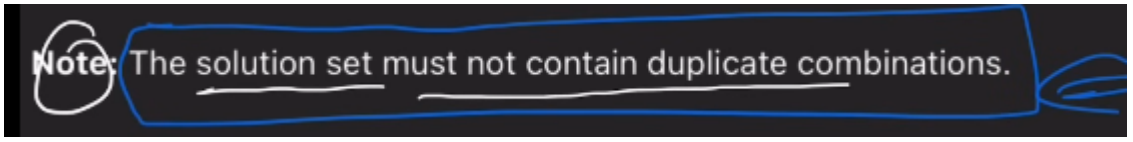
whenever there use all combination , all permutation then use backtracking to solve it

For Example

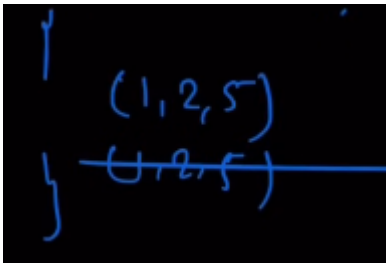


combine two unqiue number to find find combination sum for a target value. (target =8)

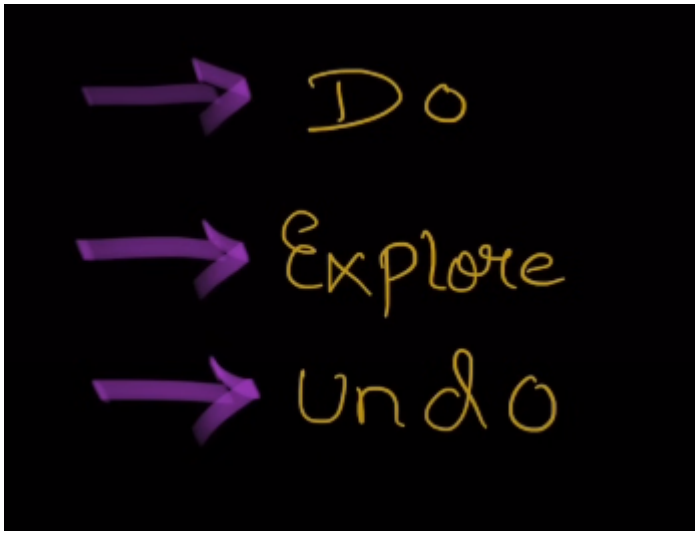




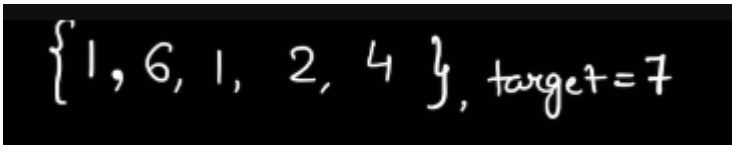
when value = [1,2,5,1,2,5]



like this dont use two same combination

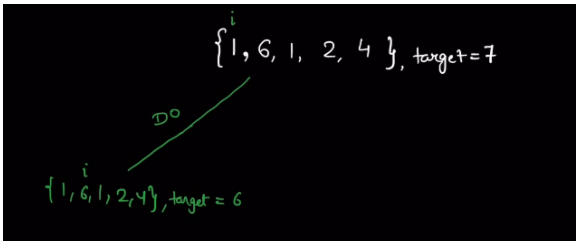


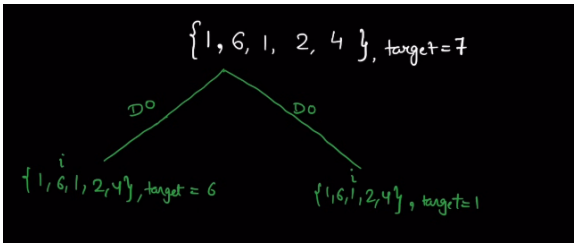
start:

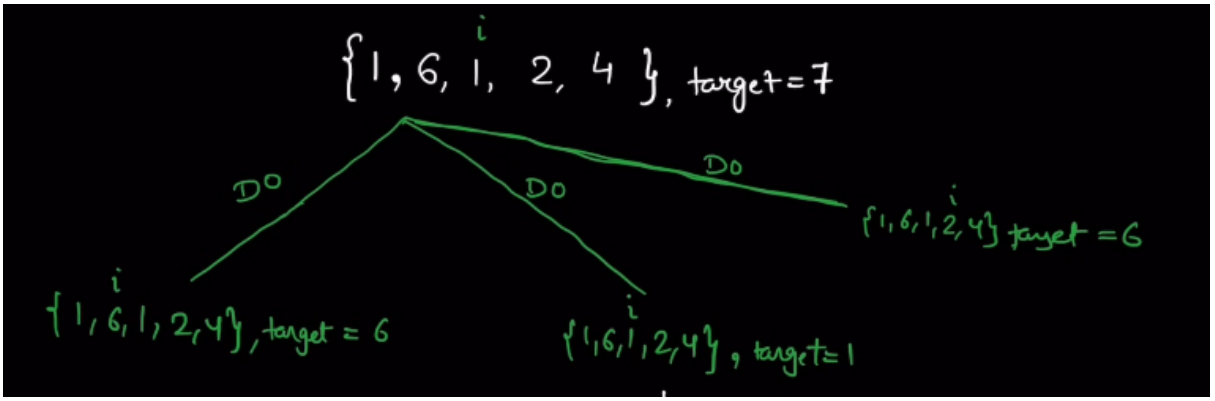


here (target) **7** - (i) **1 = new target = 6**

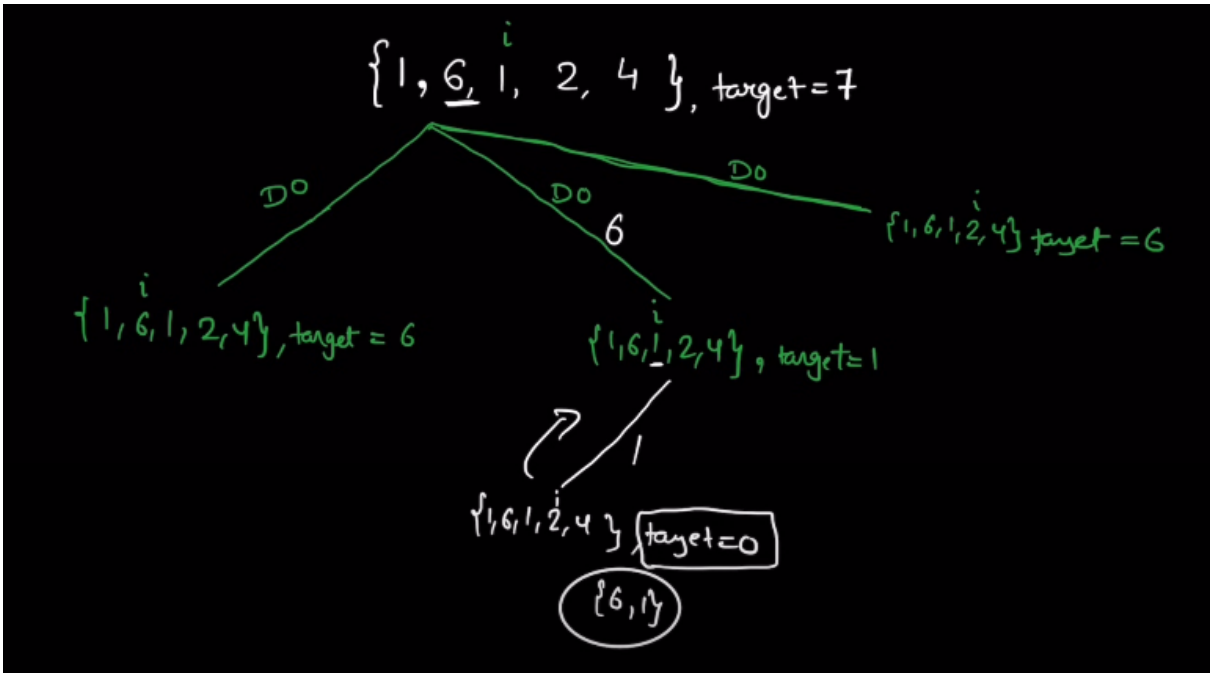
here (target) **7** - (i) 6 = new target = 1

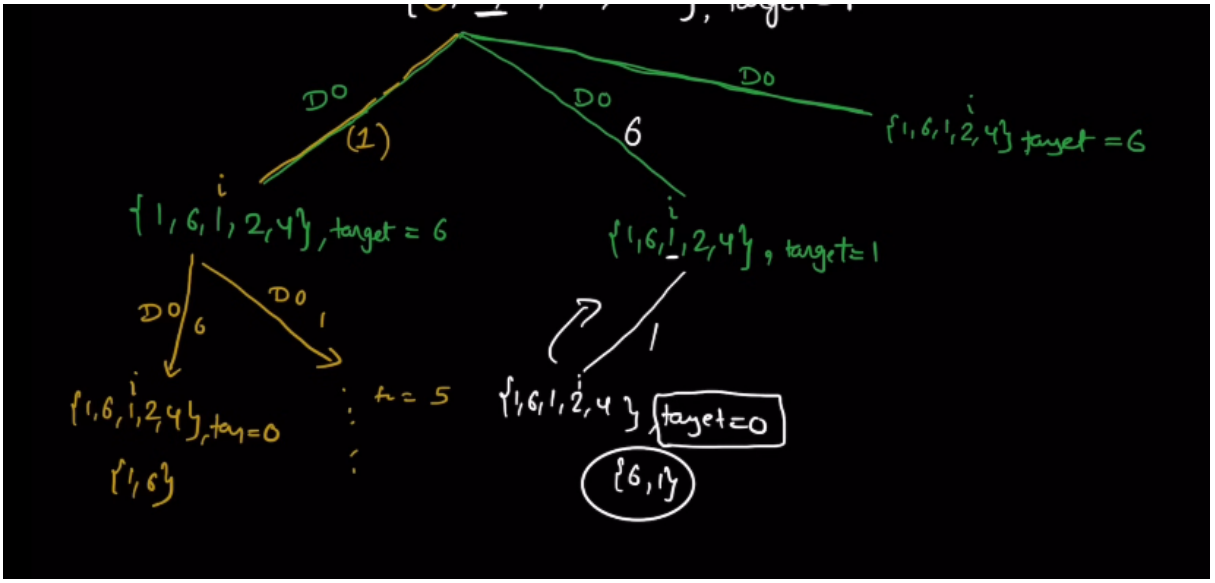






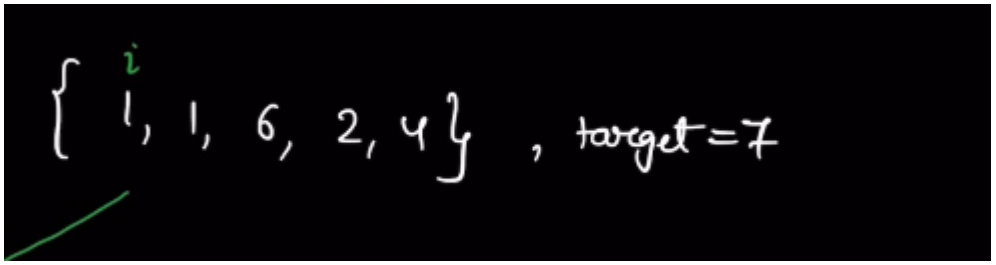
WE RETURN when we found the target or get target = 0

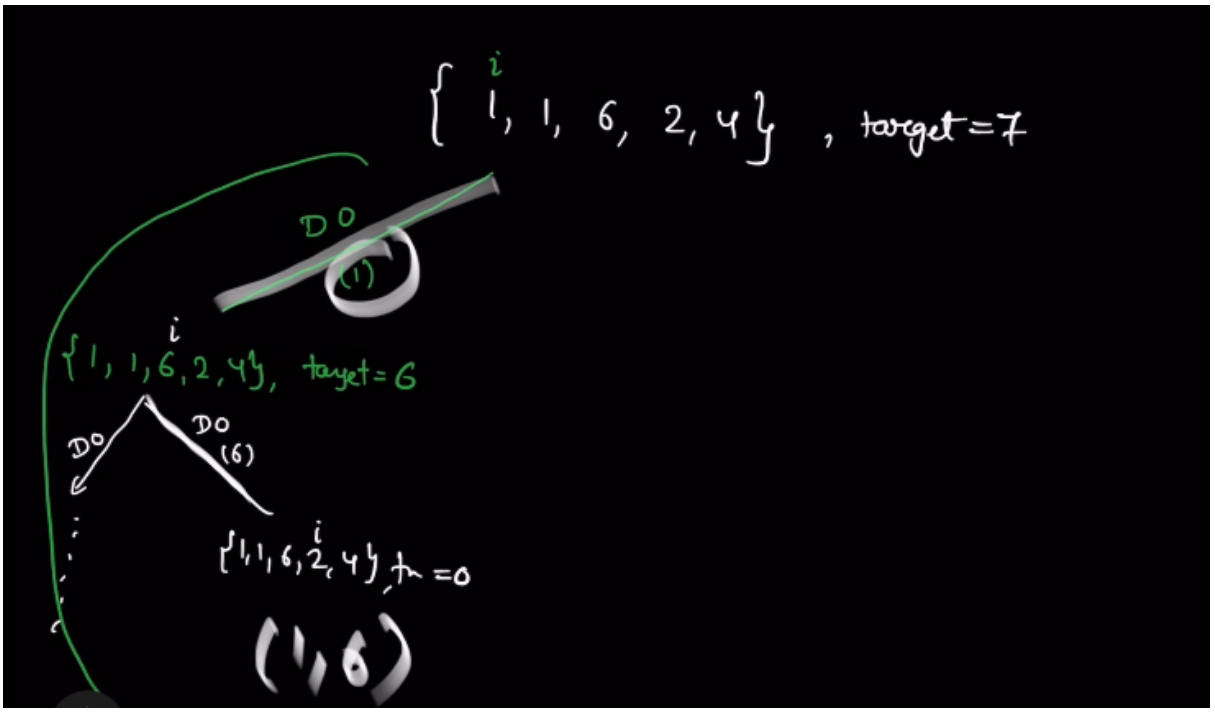


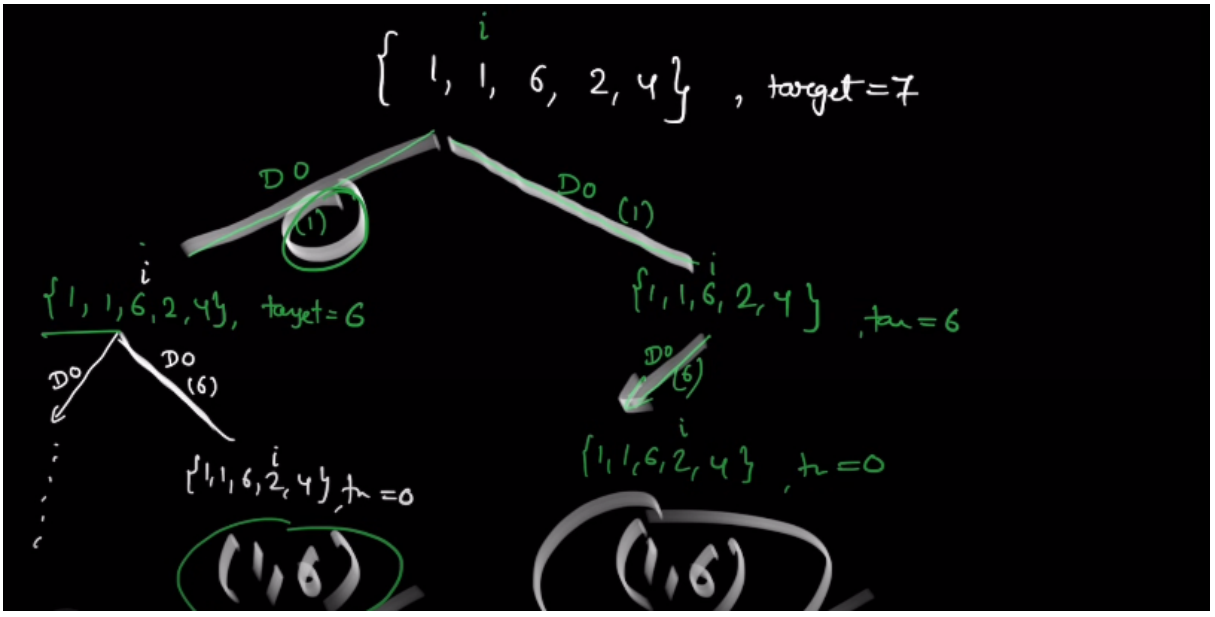


we try out all possibility and we found the answer:

let try out with different target and new array of numbers







but we get duplicate answer

Code

```
class Solution {
public:

    void solve(vector<int>& candidates, int target,vector<int
        if(target<0)
            return;
        if(target==0){
            result.push_back(current);
            return ;
        }

        for(int i=idx;i<candidates.size();i++){
            if(i>idx && candidates[i]==candidates[i-1]){
                continue;
            }

            current.push_back(candidates[i]);
            solve(candidates,target-candidates[i],current,i+1
            current.pop_back();
```

```
        }
    }

    vector<vector<int>> combinationSum2(vector<int>& candidat

        vector<vector<int>> result;
        vector<int> current;
        sort(begin(candidates),end(candidates));
        solve(candidates,target,current,0,result);
        return result;

    }
};
```

You tube video

https://www.youtube.com/watch?v=bfKwLi6jtDk