**PROBLEM STATEMENT**:

Given a set of distinct integers, S, return all possible subsets.

**Example :**

If S = [1,2,3], a solution is:

[

[],

[1],

[1, 2],

[1, 2, 3],

[1, 3],

[2],

[2, 3],

[3],

]

**CODE:**

void util(vector<vector<int>>&ans,vector<int>part,int idx,vector<int>ar)

{

ans.push\_back(part);

for(int i=idx;i<ar.size();i++)

{

part.push\_back(ar[i]);

util(ans,part,i+1,ar);

part.pop\_back();

}

}

vector<vector<int> > Solution::subsets(vector<int> &A) {

vector<vector<int>>ans;

vector<int>part;

sort(A.begin(),A.end());

util(ans,part,0,A);

return ans;

}