

Greedy Method

- Greedy algorithm obtains an **optimal** solution by making a **sequence** of decisions.
- Decisions are made **one by one** in some order.
- Each decision is made using a **greedy-choice property** or greedy criterion.
- A decision, once made, is (usually) **not changed** later.

Greedy Method (2)

- A greedy algorithm always **makes the decision** that **looks best** at the moment.
- It does not always produce an **optimal** solution.
- It works best when applied to problems with the **greedy-decision** property.

Greedy method control abstraction / General method

(Sahni : 2nd Edition, Page – 211, Algorithm – 4.1)

Algorithm Greedy(a,n)
// a[1:n] contains the n inputs
{
 solution = Φ //Initialize solution
 for i=1 to n **do**
 {
 x:=Select(a);
 if Feasible(solution,x) **then**
 solution=Union(solution,x)
 }
 return solution;
}

Thank You

Stay Safe