

**Class Notes**

**CIS 502 Analysis of Algorithm**

**4-Greedy Algorithm**

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# 1 Optimization Problem

**Definition 1.1** *Optimization Problem:* Minimize or maximize some function subject to some constraints.

Now we start with a special class of optimization problem:

- Given a set of elements, pick a subset.
- Constraints tell you which subsets are allowed.
- Any allowed subset is a feasible solution.
- Objective function assigns a value to every feasible solution.
- Goal is to find the feasible solution with greatest/ least value.

ddd

## 2 Minimum Spanning Tree Problem

Minimum spanning tree problem is an example of optimization problem. ??? ddd sssdddf