

Backtracking algorithms - an example of how such algorithms works.

- Backtracking algorithms are algorithms for searching some kind of a solution space with a specific set of constraints. They use DFS to go through a state space tree, which represents the whole solution space. If some branch of solutions doesn't meet the constraints then the DFS goes back and explores another branch.
- It often has an exponential time complexity, but it's still more efficient than brute force.
- It is an exact algorithm, if one of the solutions is better than all, then it will return that solution.
- It requires a modest amount of memory.