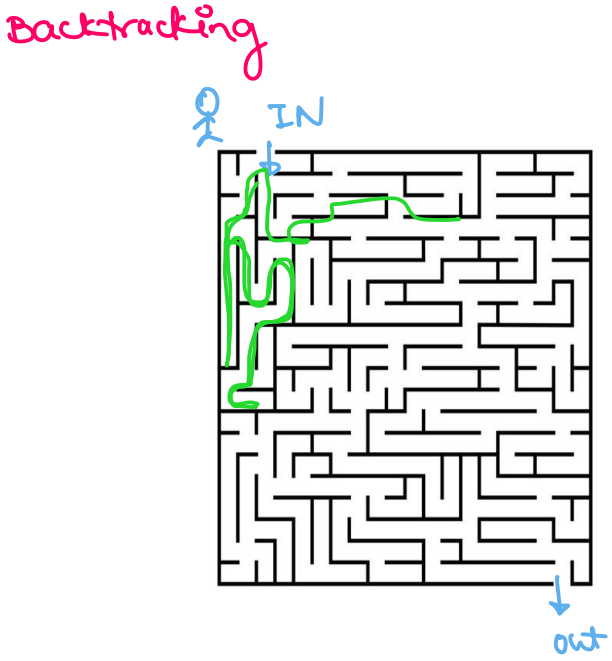
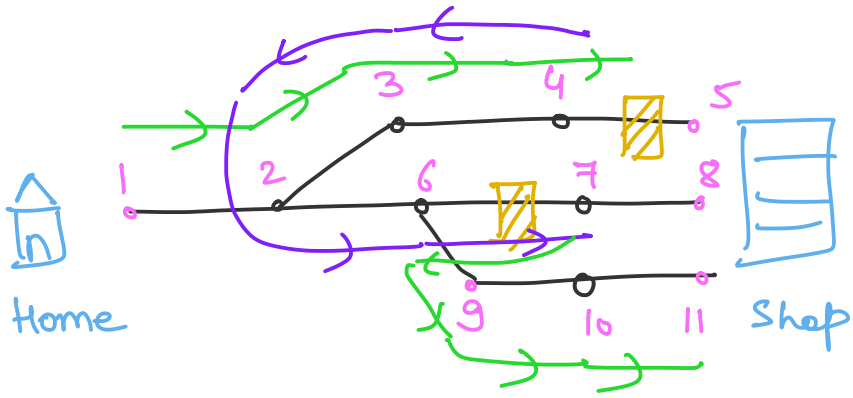
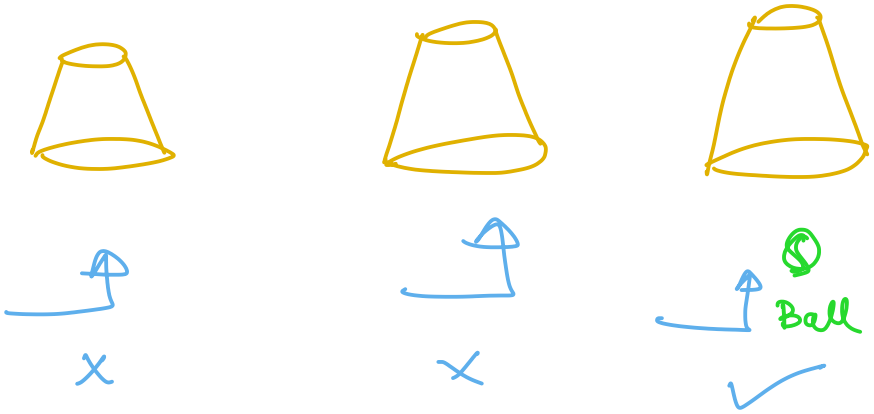




Home → 1 → 2 → 6 → 9 → 10 → 11 → shop



It is a technique for solving problems recursively by trying to build the soln incrementally, one piece at a time, removing those soln's which fail to satisfy the constraints at any point of time.

Types of backtracking problems

- Decision problem
- Optimization problem
- Enumeration problem

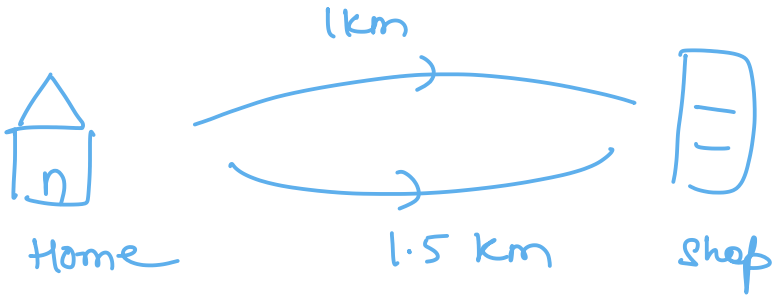
Decision problem

In this we search for a feasible soln.

feasible → possible soln → something that will work for us.

Optimization problem

In this we look for the soln which will work best for us.



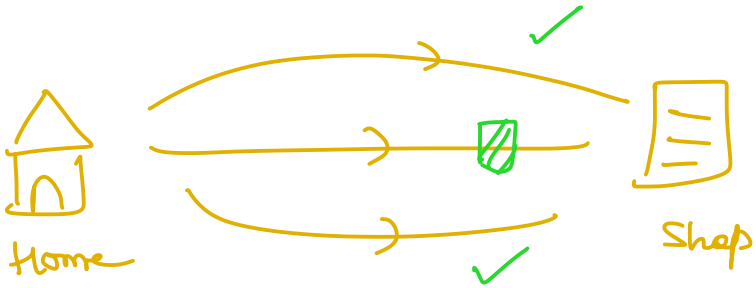
In this case, 1km will be the optimal soln (or best soln) because

it takes lesser time.

Enumeration problem

↓

Collection



Here we are targetting to find all the feasible sol^{n}s.

Q Tiling problem — Amazon

Given a board of size "2*n" and tile of size "2*1", count the number of ways to tile the given board.

Sol^{n} For placing a tile, we have

2 placements

1