

- The next question now that we need an answer (3) to is: "How does one identify that one can use the technique of Dynamic Programming to solve a particular problem?"

The following are some of the ways one can use to identify the applicability of Dynamic Programming to a specific problem:

1) As we saw in the previous parts that DP is nothing but enhanced "recursion". Hence if you/one has figured out that one can solve a problem using recursion then there is a good chance the DP (dynamic programming) could also be applied to the problem.

2) The technique of dynamic programming is particularly applicable to a certain ~~class~~ class of problems called the "Optimization Problems".

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"Many important problems in real life involve finding the best way to accomplish some task. The word best way is often linked to or mapped / involves to find the maximum or minimum value of some mathematical function. Some examples can be :

- 1) The minimum time taken to complete a certain train journey.
- 2) The minimum cost of doing a task.
- 3) The maximum profit that can be earned selling a subset of items

Many of these problems can be solved by finding the