Dynamic Programming (DP)

Video Lectures on DP (Helped me understand DP)

- Errichto Lecture #1
- Errichto Lecture #2
- Errichto Lecture #3
- Aditya Verma DP playlist - Watching till lecture #32 is enough! (Must watch - this is one of the best DP content I've ever seen)

Here are some must-do DP problems (these are some famous classical problems and most of the DP problems we face are variations of these ones). If you face issues understanding the problems don't hesitate to watch a tutorial on youtube about that particular problem.

- 0/1 Knapsack - problem link

  Knapsack variations:

  - Unbounded knapsack - problem link
  - Subset sum - problem link
  - Coin change - problem link

- Longest Common Subsequence (LCS) - problem link

  Longest Common Subsequence (LCS) variations:

  - Longest palindromic subsequence - problem link
  - Minimum insertions to form a palindrome - problem link

- Longest Increasing Subsequence (LIS) - problem link

  Longest Increasing Subsequence (LIS) variations:

  - (LCS + LIS) variation - problem link

- Grid DP
    - Minimum cost path in a grid - problem link
    - Count the number of paths in a grid - problem link
    - Count the number of unique paths in a grid - problem link

- More important problems
    - Minimum number of jumps to reach the end of an array - problem link
    - Count ways to reach the Nth stair - problem link

Finally, when you're done with these aforementioned classical problems, go to this link and solve **at least 20 problems** from this page (maintaining difficulty in increasing order). And then, you're good to go and then start solving DP problems from (**Codeforces**) depending on your rating. Good Luck!!