

Lecture No.	Topic	Practice Problems	Class Recording	Lecture Slides	Homework Discussion session
1	CPP Basics + Time Complexity Analysis	https://codeforces.com/problemset/problem/110/A https://cses.fi/problemset/task/1083 https://cses.fi/problemset/task/1089 https://codeforces.com/problemset/problem/1619/A https://www.geeksforgeeks.org/practice-questions-time-complexity-analysis/	https://youtu.be/qGb5qIC26Yg	https://drive.google.com/file/d/1tAEiSwMl8dwc08xXK9TF_XmTYW56oso/view?usp=drive_link	(Could not be recorded)
2	Number Theory 1 (Euclid's Algorithm, Integer Factorization and Prime Factorization)	https://codeforces.com/problemset/problem/797/A https://codeforces.com/problemset/problem/1780/B https://codeforces.com/problemset/problem/1203/C https://codeforces.com/problemset/problem/1478/A	https://youtu.be/OTHUhhuyx-Q	https://drive.google.com/file/d/1ZBltpoS-RoGtMNdY5qxYIFuYocJP0G/view?usp=sharing	https://youtu.be/vGqpwu710Wg
3	Number Theory 2 (Sieve of Eratosthenes)	https://leetcode.com/problems/four-divisors/ https://www.spoj.com/problems/VECTAR8/ https://codeforces.com/problemset/problem/17/A https://codeforces.com/contest/776/problem/B https://codeforces.com/problemset/problem/154/B	https://youtu.be/zKCZgTUT5k8	No slides used	https://youtu.be/JdsQ0fVX7m0
4	Recursion and Backtracking	https://leetcode.com/problems/n-queens/ https://practice.geeksforgeeks.org/problems/sum-string3151/1	https://youtu.be/4Tk07z3FJp4	https://drive.google.com/file/d/1XHbndBFZHTFRx4QSA_rO94w23KIKIXhU/view?usp=sharing	https://youtu.be/EbNupVshw6s
5	Searching and Sorting	https://cses.fi/problemset/task/1074 https://codeforces.com/contest/493/problem/C https://codeforces.com/problemset/problem/1850/D https://codeforces.com/contest/1848/problem/B https://codeforces.com/problemset/problem/1690/E	https://youtu.be/jQVYSpuBYv0	No slides used	https://youtu.be/SY3oySS1z8o
6	C++ STL	https://leetcode.com/problems/valid-parentheses/ https://leetcode.com/problems/min-stack/ https://codeforces.com/problemset/problem/1345/B https://leetcode.com/problems/number-of-students-unable-to-eat-lunch/ https://leetcode.com/problems/maximum-nesting-depth-of-the-parentheses/ https://leetcode.com/problems/kl-largest-element-in-a-stream/ https://codeforces.com/contest/1277/problem/B	https://youtu.be/l636h4NXm8	https://drive.google.com/file/d/1hyB0E0j0mOUBt5XEsiHJyp3tmWQBkG6Q/view?usp=sharing	https://youtu.be/jXr3T5rtloI
7	Prefix Sums and Difference Arrays	https://codeforces.com/contest/177/problem/D2 https://atcoder.jp/contests/abc179/tasks/abc179_d https://codeforces.com/contest/295/problem/A https://codeforces.com/contest/276/problem/C	https://youtu.be/DeQ4WukHKc8	https://drive.google.com/file/d/1aKcuXzsj0ynoTnNTiS6lPYUm9V0XEe2u/view?usp=sharing	https://youtu.be/jXr3T5rtloI
8	2-Pointers and Sliding Window Technique	https://codeforces.com/edu/course/2/lesson/9/2/practice (All Problems here) https://leetcode.com/problems/sliding-window-median/description/	https://youtu.be/wQoyFyNq4_c	https://drive.google.com/file/d/1_zsxpQwy-8AePleKsJxxxQLb6yRmah_/view?usp=drive_link	https://youtu.be/0QU3Az0mw-A
9	Greedy Algorithms	https://leetcode.com/problems/jump-game/ https://leetcode.com/problems/find-original-array-from-doubled-array/ https://codeforces.com/problemset/problem/1840/D https://codeforces.com/problemset/problem/1761/C https://codeforces.com/problemset/problem/1628/B https://codeforces.com/problemset/problem/1688/D https://codeforces.com/contest/1512/problem/E	https://youtu.be/iYK8px33pYg	https://drive.google.com/drive/folders/1sbDPP-YJYeRE2DGae5-0YIYh9Pe99lIC	https://youtu.be/d4Oa4cSrG0o
10	Bit Manipulation	https://codeforces.com/problemset/problem/1518/B https://codeforces.com/problemset/problem/1615/B https://codeforces.com/problemset/problem/1601/A https://codeforces.com/problemset/problem/1395/C	https://youtu.be/OR83jF3wAOg	https://drive.google.com/file/d/1NYdlpyKw33CgcCRM4kaI0Aq-1RV7D56P/view?usp=sharing	https://youtu.be/B8fc94RQCtU
11	Combinatorics	https://codeforces.com/problemset/problem/312/B https://codeforces.com/problemset/problem/844/B https://codeforces.com/problemset/problem/1594/E1 https://codeforces.com/problemset/problem/621/C (Google OA Problem) https://codeforces.com/problemset/problem/803/F (Very nice trick) https://codeforces.com/problemset/problem/689/E (Another must know trick!)	https://youtu.be/cf38B4_GdSE	https://drive.google.com/file/d/1laG0dgW49l-b3NlFK7i2_textDgMA263/view?usp=sharing	https://youtu.be/QpJH903C5KY
12	Dynamic Programming 1	https://cses.fi/problemset/task/1633 https://cses.fi/problemset/task/1634 https://cses.fi/problemset/task/1635 https://codeforces.com/problemset/problem/1350/B	https://youtu.be/uCBtyy0Zupc	https://drive.google.com/file/d/1KSc0zscF3E5nKJJSSCPCA_gRt-C-VRHH/view?usp=sharing	https://youtu.be/8jNH2-QvUc
13	Dynamic Programming 2	https://codeforces.com/problemset/problem/1389/B https://atcoder.jp/contests/dp/tasks/dp_i https://codeforces.com/problemset/problem/1249/E (Similar to a problem asked in my Uber OA) https://codeforces.com/problemset/problem/1525/D (super interesting problem)	https://youtu.be/1NeE9kWzMOg	https://drive.google.com/file/d/1Kp6EsmSlq64X7A9Sdl3oi9JTvJ8okzCp/view?usp=sharing	https://youtu.be/08q24jltwak
14	Dynamic Programming 3	https://codeforces.com/problemset/problem/888/D https://codeforces.com/problemset/problem/711/C https://codeforces.com/problemset/problem/830/A https://codeforces.com/problemset/problem/1114/D https://codeforces.com/contest/1151/problem/B (answer reconstruction)	https://youtu.be/jTUpJQd1foU	https://drive.google.com/file/d/1JX8ybFOj4WkAvh5ANUuEciTb1RzmDkb/view?usp=sharing	https://youtu.be/cPra2O1n3vU
15	Dynamic Programming 4	https://www.spoj.com/problems/ASSIGN/ https://codeforces.com/contest/269/problem/B https://codeforces.com/problemset/problem/1360/F https://codeforces.com/problemset/problem/1077/F1 https://codeforces.com/contest/580/problem/D https://codeforces.com/problemset/problem/895/C https://www.spoj.com/problems/COURIER/	https://youtu.be/Ka_zd5qD5ik	https://drive.google.com/file/d/1XvNH7fVVCvXJlVrRdEA3ni6khnZ96q7z/view?usp=sharing	https://youtu.be/Fp71AmYURro

16	Introduction to Graphs and Trees	https://codeforces.com/problemset/problem/1676/G https://codeforces.com/problemset/problem/1670/C https://codeforces.com/problemset/problem/1139/C https://codeforces.com/problemset/problem/954/D https://codeforces.com/problemset/problem/1850/H	https://youtu.be/bnwH-bt4p8g	https://drive.google.com/file/d/140GbqYLWKk2lJR2mZMFWrsIfit4YlyX/view?usp=sharing	https://youtu.be/Mj_F-NNsYfQ
17	Single source Shortest Path Algorithms	https://codeforces.com/problemset/problem/1401/D (Not related to shortest paths but a great dfs problem) https://codeforces.com/contest/20/problem/C https://cses.fi/problemset/task/1195 https://codeforces.com/contest/1076/problem/D https://codeforces.com/problemset/problem/1725/M https://codeforces.com/contest/1307/problem/D (Codenation OA + quite Interesting)	https://youtu.be/sDRFswFjp-4	https://drive.google.com/file/d/15neXn0deBQnHmouFrQvkoBQ_6D4ErgY/view?usp=sharing	https://youtu.be/ETypTqj3JPA
18	All-Pairs Shortest Path	https://cses.fi/problemset/task/1672 https://codeforces.com/contest/25/problem/C https://www.spoj.com/problems/INGRED/ http://www.spoj.com/problems/ROHAAN/ https://codeforces.com/contest/33/problem/B	https://youtu.be/RuIZ84JlCrc	https://drive.google.com/file/d/1fNCsIAcc4rTLth2zYrcBkm0whpaFz-x/view?usp=sharing	https://youtu.be/ETypTqj3JPA
19	Disjoint Set Union and Kruskal's Algorithm	https://codeforces.com/contest/17/problem/B https://codeforces.com/contest/1609/problem/D https://codeforces.com/contest/25/problem/D https://codeforces.com/contest/1213/problem/G https://codeforces.com/contest/598/problem/D https://www.codechef.com/ICL2016/problems/ICL16A https://codeforces.com/contest/1243/problem/D	https://youtu.be/5oxtzKQyYSY	https://drive.google.com/file/d/1cdTr7dohXS2GdqMtVyuD-6xe-AdEMTIK/view?usp=sharing	https://youtu.be/tSVE3nqSPAww
20	DP on DAG's, Toposort, DP on Trees	https://codeforces.com/contest/1573/problem/C https://codeforces.com/contest/909/problem/E https://codeforces.com/contest/1674/problem/G https://codeforces.com/contest/1693/problem/B https://codeforces.com/contest/1740/problem/E https://codeforces.com/contest/1856/problem/E1	https://youtu.be/D_ck_xOCUOW	https://drive.google.com/file/d/10Tym1_Bj-Y0bel8QJevGwPZV0Y47QBVn/view?usp=sharing	https://youtu.be/3QV_lzxvrsY
21	Miscellaneous Topics (Binary Search on answer, Segment Tree, Sparse Table, LCA, Binary Lifting)	https://codeforces.com/contest/1630/problem/B https://codeforces.com/contest/1610/problem/C https://codeforces.com/contest/1661/problem/C https://codeforces.com/contest/339/problem/D (Segment Tree) https://codeforces.com/contest/5/problem/C (Sparse Table) https://codeforces.com/contest/609/problem/E (Binary Lifting + LCA)	https://youtu.be/rPnKG6Q_UkY	https://drive.google.com/file/d/11JlNYUvIRjxoFwwQGv1wSU4KTrh5NWmw/view?usp=sharing	