Competitive Programming
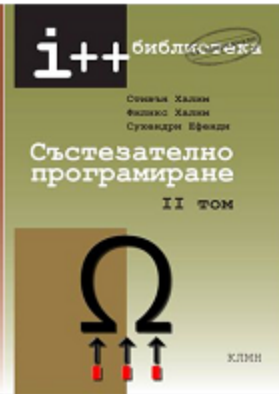
Methods to Solve (2000-present)

Use these filters to narrow down your next problem to solve:

OJ: [Both ⌄] , Topic: [NUS CS2040 ⌄] , Quality: [Starred ⌄]

Online Judge shown: Both
Problem topics shown: NUS CS2040/C/S : (Basic) Data Structures and Algorithms level: 1D/2D Array/Vector, Sorting, Linked List, Binary Heap, Hash Table, Binary Search Tree, Graph DS, Graph Traversal, SSSP
Problem Quality: Starred
Number of problems shown (initially in CP4 order): 252
Information is up to date as of 10 February 2022

You can now sort these problems based on Distinct ACcepted Users (DACU) column.
Generally, problems with high DACU are the easier problems.
Note that we only update DACU column manually (not a live data).

Note: Column Point is only relevant for Kattis online judge.

Show [All ⌄] entries   Search: [   ]

Both OJ	Problem Title	CP4
12150	Pole Position	2.2a, 1D Array, Medium
12356	Army Buddies	2.2a, 1D Array, Medium

Both OJ	Problem Title	CP4
13181	Sleeping in hostels	2.2a, 1D Array, Medium
baloni	baloni	2.2a, 1D Array, Medium
downtime	downtime	2.2a, 1D Array, Medium
greedilyincreasing	greedilyincreasing	2.2a, 1D Array, Medium
jollyjumpers	jollyjumpers	2.2a, 1D Array, Medium
10978	Let's Play Magic!	2.2b, 1D Array, Harder
11222	Only I did it!	2.2b, 1D Array, Harder
12662	Good Teacher	2.2b, 1D Array, Harder
13048	Burger Stand	2.2b, 1D Array, Harder
divideby100	divideby100	2.2b, 1D Array, Harder
mastermind	mastermind	2.2b, 1D Array, Harder
pivot	pivot	2.2b, 1D Array, Harder
11581	Grid Successors	2.2c, 2D Array, Easier
12187	Brothers	2.2c, 2D Array, Easier
12667	Last Blood	2.2c, 2D Array, Easier
epigdanceoff	epigdanceoff	2.2c, 2D Array, Easier
flowshop	flowshop	2.2c, 2D Array, Easier
imageprocessing	imageprocessing	2.2c, 2D Array, Easier
nineknights	nineknights	2.2c, 2D Array, Easier
00466	Mirror, Mirror	2.2d, 2D Array, Harder
11360	Have Fun with Matrices	2.2d, 2D Array, Harder
12291	Polyomino Composer	2.2d, 2D Array, Harder
2048	2048	2.2d, 2D Array, Harder
flagquiz	flagquiz	2.2d, 2D Array, Harder

Both OJ	Problem Title	CP4
funhouse	funhouse	2.2d, 2D Array, Harder
rings2	rings2	2.2d, 2D Array, Harder
10107	What is the Median?	2.2e, Sorting, Easier
12541	Birthdates	2.2e, Sorting, Easier
12709	Falling Ants	2.2e, Sorting, Easier
basicprogramming2	basicprogramming2	2.2e, Sorting, Easier
height	height	2.2e, Sorting, Easier
mjehuric	mjehuric	2.2e, Sorting, Easier
sidewayssorting	sidewayssorting	2.2e, Sorting, Easier
01610	Party Games	2.2f, Sorting, Harder
10258	Contest Scoreboard	2.2f, Sorting, Harder
11321	Sort! Sort!! and Sort!!!	2.2f, Sorting, Harder
classy	classy	2.2f, Sorting, Harder
dyslectionary	dyslectionary	2.2f, Sorting, Harder
musicyourway	musicyourway	2.2f, Sorting, Harder
sortofsorting	sortofsorting	2.2f, Sorting, Harder
00612	DNA Sorting	2.2g, Special Sorting
11462	Age Sort	2.2g, Special Sorting
11495	Bubbles and Buckets	2.2g, Special Sorting
13212	How many inversions?	2.2g, Special Sorting
bread	bread	2.2g, Special Sorting
mali	mali	2.2g, Special Sorting
00514	Rails	2.2j, Stack
01062	Containers	2.2j, Stack

Both OJ	Problem Title	CP4
13055	Inception	2.2j, Stack
evenup	evenup	2.2j, Stack
pairingsocks	pairingsocks	2.2j, Stack
restaurant	restaurant	2.2j, Stack
throwns	throwns	2.2j, Stack
00551	Nesting a Bunch of Bracket...	2.2k, Stack-based Problems
00673	Parentheses Balance	2.2k, Stack-based Problems
00727	Equation	2.2k, Stack-based Problems
11111	Generalized Matrioshkas	2.2k, Stack-based Problems
bungeebuilder	bungeebuilder	2.2k, Stack-based Problems
circuitmath	circuitmath	2.2k, Stack-based Problems
delimitersoup	delimitersoup	2.2k, Stack-based Problems
10172	The Lonesome Cargo Distrib...	2.2l, List/Queue/Deque
11988	Broken Keyboard (a.k.a. Be...	2.2l, List/Queue/Deque
12108	Extraordinarily Tired Stud...	2.2l, List/Queue/Deque
integerlists	integerlists	2.2l, List/Queue/Deque
joinstrings	joinstrings	2.2l, List/Queue/Deque
sim	sim	2.2l, List/Queue/Deque
teque	teque	2.2l, List/Queue/Deque
01203	Argus	2.3a, Priority Queue
11997	K Smallest Sums	2.3a, Priority Queue
13190	Rockabye Tobby	2.3a, Priority Queue
jugglingpatterns	jugglingpatterns	2.3a, Priority Queue
knigsoftheforest	knigsoftheforest	2.3a, Priority Queue

Both OJ	Problem Title	CP4
numbertree	*numbertree*	*2.3a, Priority Queue*
stockprices	*stockprices*	*2.3a, Priority Queue*
00499	*What's The Frequency, Kenn...*	*2.3b, DAT, ASCII*
11340	*Newspaper*	*2.3b, DAT, ASCII*
11577	*Letter Frequency*	*2.3b, DAT, ASCII*
12626	*I ❤️ Pizza*	*2.3b, DAT, ASCII*
alphabetspam	*alphabetspam*	*2.3b, DAT, ASCII*
quickbrownfox	*quickbrownfox*	*2.3b, DAT, ASCII*
soundex	*soundex*	*2.3b, DAT, ASCII*
01368	*DNA Consensus String*	*2.3c, DAT, Others*
11203	*Can you decide it for ME?*	*2.3c, DAT, Others*
12650	*Dangerous Dive*	*2.3c, DAT, Others*
bookingaroom	*bookingaroom*	*2.3c, DAT, Others*
busnumbers	*busnumbers*	*2.3c, DAT, Others*
freefood	*freefood*	*2.3c, DAT, Others*
princesspeach	*princesspeach*	*2.3c, DAT, Others*
10887	*Concatenation of Languages*	*2.3d, Hash Table (set)*
12049	*Just Prune The List*	*2.3d, Hash Table (set)*
13148	*A Giveaway*	*2.3d, Hash Table (set)*
cd	*cd*	*2.3d, Hash Table (set)*
esej	*esej*	*2.3d, Hash Table (set)*
greetingcard	*greetingcard*	*2.3d, Hash Table (set)*
shiritori	*shiritori*	*2.3d, Hash Table (set)*
00902	*Password Search*	*2.3e, Hash Table (map), E*

Both OJ	Problem Title	CP4
11348	Exhibition	*2.3e, Hash Table (map), E*
11629	Ballot evaluation	*2.3e, Hash Table (map), E*
competitivearcadebasketball	competitivearcadebasketbal...	*2.3e, Hash Table (map), E*
conformity	conformity	*2.3e, Hash Table (map), E*
grandpabernie	grandpabernie	*2.3e, Hash Table (map), E*
recount	recount	*2.3e, Hash Table (map), E*
00417	Word Index	*2.3f, Hash Table (map), H*
10145	Lock Manager	*2.3f, Hash Table (map), H*
11860	Document Analyzer	*2.3f, Hash Table (map), H*
addingwords	addingwords	*2.3f, Hash Table (map), H*
awkwardparty	awkwardparty	*2.3f, Hash Table (map), H*
basicinterpreter	basicinterpreter	*2.3f, Hash Table (map), H*
00978	Lemmings Battle!	*2.3g, Balanced BST (set)*
10815	Andy's First Dictionary	*2.3g, Balanced BST (set)*
11136	Hoax or what	*2.3g, Balanced BST (set)*
13037	Chocolate	*2.3g, Balanced BST (set)*
bst	bst	*2.3g, Balanced BST (set)*
candydivision	candydivision	*2.3g, Balanced BST (set)*
compoundwords	compoundwords	*2.3g, Balanced BST (set)*
10138	CDVII	*2.3h, Balanced BST (map)*
11308	Bankrupt Baker	*2.3h, Balanced BST (map)*
12504	Updating a Dictionary	*2.3h, Balanced BST (map)*
administrativeproblems	administrativeproblems	*2.3h, Balanced BST (map)*
doctorkattis	doctorkattis	*2.3h, Balanced BST (map)*

Both OJ	Problem Title	CP4
kattissquest	kattissquest	2.3h, Balanced BST (map)
srednji	srednji	2.3h, Balanced BST (map)
10909	Lucky Number	2.3i, Order Statistics Tree
babynames	babynames	2.3i, Order Statistics Tree
continuousmedian	continuousmedian	2.3i, Order Statistics Tree
cookieselection	cookieselection	2.3i, Order Statistics Tree
gcpc	gcpc	2.3i, Order Statistics Tree
00599	The Forrest for the Trees	2.4a, Graph Data Structures
10895	Matrix Transpose	2.4a, Graph Data Structures
11550	Demanding Dilemma	2.4a, Graph Data Structures
11991	Easy Problem from Rujia Li...	2.4a, Graph Data Structures
abinitio	abinitio	2.4a, Graph Data Structures
chopwood	chopwood	2.4a, Graph Data Structures
traveltheskies	traveltheskies	2.4a, Graph Data Structures
00592	Island of Logic	3.2b, Iterative (Two Loops)
01588	Kickdown	3.2b, Iterative (Two Loops)
12488	Start Grid	3.2b, Iterative (Two Loops)
blackfriday	blackfriday	3.2b, Iterative (Two Loops)
closestsums	closestsums	3.2b, Iterative (Two Loops)
golombrulers	golombrulers	3.2b, Iterative (Two Loops)
00441	Lotto	3.2c, Three+ Nested Loops, E
00735	Dart-a-Mania	3.2c, Three+ Nested Loops, E
12515	Movie Police	3.2c, Three+ Nested Loops, E
12844	Outwitting the Weighing Ma...	3.2c, Three+ Nested Loops, E

Both OJ	Problem Title	CP4
cudoviste	🐱 cudoviste	3.2c, Three+ Nested Loops, E
npuzzle	🐱 npuzzle	3.2c, Three+ Nested Loops, E
set	🐱 set	3.2c, Three+ Nested Loops, E
11057	📘 Exact Sum	3.3a, Binary Search
11621	📘 Small Factors	3.3a, Binary Search
12192	📘 Grapevine	3.3a, Binary Search
12965	📘 Angry Bids	3.3a, Binary Search
firefly	🐱 firefly	3.3a, Binary Search
outofsorts	🐱 outofsorts	3.3a, Binary Search
roompainting	🐱 roompainting	3.3a, Binary Search
12032	📘 The Monkey and the Oiled B...	3.3b, Bisection and BSTA, E
12190	📘 Electric Bill	3.3b, Bisection and BSTA, E
13142	📘 Destroy the Moon to Save t...	3.3b, Bisection and BSTA, E
carefulascent	🐱 carefulascent	3.3b, Bisection and BSTA, E
freeweights	🐱 freeweights	3.3b, Bisection and BSTA, E
monk	🐱 monk	3.3b, Bisection and BSTA, E
suspensionbridges	🐱 suspensionbridges	3.3b, Bisection and BSTA, E
11369	📘 Shopaholic	3.4b, Involving Sorting, E
11729	📘 Commando War	3.4b, Involving Sorting, E
11900	📘 Boiled Eggs	3.4b, Involving Sorting, E
13109	📘 Elephants	3.4b, Involving Sorting, E
icpcteamselection	🐱 icpcteamselection	3.4b, Involving Sorting, E
minimumscalar	🐱 minimumscalar	3.4b, Involving Sorting, E
shopaholic	🐱 shopaholic	3.4b, Involving Sorting, E

Both OJ	Problem Title	CP4
01153	Keep the Customer Satisfie...	3.4d, Involving PQ
10954	Add All	3.4d, Involving PQ
13177	Orchestral scores	3.4d, Involving PQ
ballotboxes	ballotboxes	3.4d, Involving PQ
canvas	canvas	3.4d, Involving PQ
vegetables	vegetables	3.4d, Involving PQ
workstations	workstations	3.4d, Involving PQ
00459	Graph Connectivity	4.2a, Finding CCs
11749	Poor Trade Advisor	4.2a, Finding CCs
11906	Knight in a War Grid	4.2a, Finding CCs
dominoes2	dominoes2	4.2a, Finding CCs
reachableroads	reachableroads	4.2a, Finding CCs
terraces	terraces	4.2a, Finding CCs
wheresmyinternet	wheresmyinternet	4.2a, Finding CCs
00352	The Seasonal War	4.2b, Flood Fill, Easier
00572	Oil Deposits	4.2b, Flood Fill, Easier
00871	Counting Cells in a Blob	4.2b, Flood Fill, Easier
11953	Battleships	4.2b, Flood Fill, Easier
amoebas	amoebas	4.2b, Flood Fill, Easier
countingstars	countingstars	4.2b, Flood Fill, Easier
gold	gold	4.2b, Flood Fill, Easier
00200	Rare Order	4.2d, Topological Sort
00872	Ordering	4.2d, Topological Sort
11060	Beverages	4.2d, Topological Sort

Both OJ	Problem Title	CP4
brexit	brexit	4.2d, Topological Sort
builddeps	builddeps	4.2d, Topological Sort
conservation	conservation	4.2d, Topological Sort
pickupsticks	pickupsticks	4.2d, Topological Sort
10004	Bicoloring	4.2e, Graph Properties Check
10116	Robot Motion	4.2e, Graph Properties Check
10505	Montesco vs Capuleto	4.2e, Graph Properties Check
hoppers	hoppers	4.2e, Graph Properties Check
molekule	molekule	4.2e, Graph Properties Check
runningmom	runningmom	4.2e, Graph Properties Check
torn2pieces	torn2pieces	4.2e, Graph Properties Check
00824	Coast Tracker	4.2h, Really Ad Hoc
11831	Sticker Collector Robot	4.2h, Really Ad Hoc
12376	As Long as I Learn, I Live	4.2h, Really Ad Hoc
12442	Forwarding Emails	4.2h, Really Ad Hoc
faultyrobot	faultyrobot	4.2h, Really Ad Hoc
promotions	promotions	4.2h, Really Ad Hoc
succession	succession	4.2h, Really Ad Hoc
00336	A Node Too Far	4.4a, SSSP, BFS, Easier
00429	Word Transformation	4.4a, SSSP, BFS, Easier
10653	Bombs! NO they are Mines!!	4.4a, SSSP, BFS, Easier
12160	Unlock the Lock	4.4a, SSSP, BFS, Easier
buttonbashing	buttonbashing	4.4a, SSSP, BFS, Easier
grid	grid	4.4a, SSSP, BFS, Easier

Both OJ	Problem Title	CP4
horror	🦊 horror	4.4a, SSSP, BFS, Easier
00439	📘 Knight Moves	4.4c, Knight Moves
00633	📘 A Chess Knight	4.4c, Knight Moves
10426	📘 Knights' Nightmare	4.4c, Knight Moves
10477	📘 The Hybrid Knight	4.4c, Knight Moves
grasshopper	🦊 grasshopper	4.4c, Knight Moves
hidingplaces	🦊 hidingplaces	4.4c, Knight Moves
01112	📘 Mice and Maze	4.4d, SSSP, Dijkstra, Easier
10986	📘 Sending email	4.4d, SSSP, Dijkstra, Easier
13127	📘 Bank Robbery	4.4d, SSSP, Dijkstra, Easier
flowerytrails	🦊 flowerytrails	4.4d, SSSP, Dijkstra, Easier
shortestpath1	🦊 shortestpath1	4.4d, SSSP, Dijkstra, Easier
shortestpath2	🦊 shortestpath2	4.4d, SSSP, Dijkstra, Easier
texassummers	🦊 texassummers	4.4d, SSSP, Dijkstra, Easier
00558	📘 Wormholes	4.4f, SSSP, -ve weight
10449	📘 Traffic	4.4f, SSSP, -ve weight
11280	📘 Flying to Fredericton	4.4f, SSSP, -ve weight
12768	📘 Inspired Procrastination	4.4f, SSSP, -ve weight
hauntedgraveyard	🦊 hauntedgraveyard	4.4f, SSSP, -ve weight
shortestpath3	🦊 shortestpath3	4.4f, SSSP, -ve weight
xyzzy	🦊 xyzzy	4.4f, SSSP, -ve weight
01600	📘 Patrol Robot	8.2b, State-Space, BFS, E
10047	📘 The Monocycle	8.2b, State-Space, BFS, E
11513	📘 9 Puzzle	8.2b, State-Space, BFS, E

Both OJ	Problem Title	CP4
12135	*Switch Bulbs*	*8.2b, State-Space, BFS, E*
ecoins	*ecoins*	*8.2b, State-Space, BFS, E*
flipfive	*flipfive*	*8.2b, State-Space, BFS, E*
safe	*safe*	*8.2b, State-Space, BFS, E*
00658	*It's not a Bug, it's a Fea...*	*8.2d, State-Space, Dijkstra*
01048	*Low Cost Air Travel*	*8.2d, State-Space, Dijkstra*
01057	*Routing*	*8.2d, State-Space, Dijkstra*
10269	*Adventure of Super Mario*	*8.2d, State-Space, Dijkstra*
bumped	*bumped*	*8.2d, State-Space, Dijkstra*
destinationunknown	*destinationunknown*	*8.2d, State-Space, Dijkstra*

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