

Concept	Problem	Class/HW	Lang	Solution					
Number Theory									
1. Prime Numbers									
Primilarity Test	https://www.code	Class	Py3	Number_Theory/Primilarity_Test/PRB01.py					
	https://www.spoj	Class	C++	Number_Theory/Primilarity_Test/PRB01.cpp					
Sieve of Eratosth	https://leetcode.c	HW	Py3	Number_Theory/Sieve_Of_Eratosthenes/Count_primes.py					
	https://www.spoj	HW	C++	Number_Theory/Prime_Factors/PFACT.cpp					
Prime factors	https://codeforce	Class	Py3	Number_Theory/Prime_Factors/Noldbach.py					
	https://codeforce	HW	C++	Number_Theory/Prime_Factors/Almost_Prime.cpp					
Segmented Seiv	https://www.spoj	Class	C++	Number_Theory/Segmented_Seive/PRIME1.cpp					
2. GCD & LCM									
Eucledian Algorit	https://leetcode.c	HW	C++	Number_Theory/Eucledian_Algorithm/GCD_array.cpp					
	https://leetcode.c	Class	Py3	Number_Theory/Eucledian_Algorithm/GCD_string.py					
LCM	https://www.geek	HW	C++	Number_Theory/LCM/LCM_array.cpp					
	https://codeforce	HW	Py3	Number_Theory/LCM/LCM_Problem.py					
Linear Diophanti			C++	Number_Theory/Linear_Diophantine_Equation/CEQU.cpp					
	https://www.spoj	Class	Py3	Number_Theory/Linear_Diophantine_Equation/CEQU.py					
	https://codeforce	Class	Py3	Number_Theory/Linear_Diophantine_Equation/Diophantine.py					
	https://leetcode.c	HW	C++	Number_Theory/Linear_Diophantine_Equation/Good_Array.cpp					
3. Euler's Totient Function									
Euler's Totient Fu	https://www.code	Class	C++	Number_Theory/Eulers_Totient_Function/COZIE.cpp					
	https://www.spoj	Class	Py3	Number_Theory/Eulers_Totient_Function/ETF.py					
	https://www.spoj	HW	C++						
	https://www.spoj	HW							
4. Binary Exponentiation									
Binary Exponenti			C++	Number_Theory/Binary_Exponentiation/Powxn.cpp					
	https://leetcode.c	Class	Py3	Number_Theory/Binary_Exponentiation/Powxn.py					
	https://leetcode.c	HW	C++	Number_Theory/Binary_Exponentiation/Cout_Good_Numbers.cpp					
			C++	Number_Theory/Binary_Exponentiation/Climbing_Stairs.cpp					
	https://leetcode.c	Class	Py3	Number_Theory/Binary_Exponentiation/Climbing_Stairs.py					
	https://leetcode.c	HW	C++	Number_Theory/Binary_Exponentiation/Attendance_Record_2.cpp					
	https://codeforce	HW	-	Codeforces Gym for fast Exponentiation (9 problems)					
5. Combinatorics									
Combinatorics	https://codeforce	HW							
	https://codeforce	HW							
	https://leetcode.c	Class	Py3	Number_Theory/Combinatorics/Count_Anagrams.py					
	https://codeforce	HW							
	https://codeforce	HW							
	https://codeforce	HW							
Arrays, Strings & Linked Lists									
6. Arrays									
Basics	https://leetcode.c	Class	C++	Arrays_Strings_Linked_Lists/Array_Basics/Missing_Number.cpp					
	https://leetcode.c	HW	Py3	Arrays_Strings_Linked_Lists/Array_Basics/Single_Number.py					
	https://leetcode.c	Class	C++	Arrays_Strings_Linked_Lists/Array_Basics/Subarray_Sum_Equals_k.cpp					
			Py3	Arrays_Strings_Linked_Lists/Array_Basics/Two_Sum.py					
	https://leetcode.c	Class	C++	Arrays_Strings_Linked_Lists/Array_Basics/Two_Sum_p.cpp					
	https://leetcode.c	Class	C++	Arrays_Strings_Linked_Lists/Array_Basics/Three_Sum.cpp					
	https://leetcode.c	HW	Py3	Arrays_Strings_Linked_Lists/Array_Basics/Four_Sum.py					
	https://codeforce	HW	-	Codeforces Gym for Basics of Arrays & Strings (9 problems)					
Dutch National F	https://www.geek	HW	C++	Arrays_Strings_Linked_Lists/Dutch_National_Flag_Algorithm/Segregate_0_and_1.cpp					
	https://leetcode.c	Class	Py3	Arrays_Strings_Linked_Lists/Dutch_National_Flag_Algorithm/Sort_Colors.py					
Moore's Voting A	https://leetcode.c	Class	C++	Arrays_Strings_Linked_Lists/Moores_Voting_Algorithm/Majority_Element.cpp					
	https://leetcode.c	HW	Py3	Arrays_Strings_Linked_Lists/Moores_Voting_Algorithm/Majority_Element_II.py					
Sorting	https://leetcode.c	HW	C++	Arrays_Strings_Linked_Lists/Sorting/Sort_Array_By_Parity.cpp					
	https://www.geek	Class	C++	Arrays_Strings_Linked_Lists/Sorting/Sort_In_Specific_Order.cpp					
	https://codeforce	HW	-	Codeforces Gym on Sorting (10 problems)					
	https://leetcode.c	Class	Py3	Arrays_Strings_Linked_Lists/Kadanes_Algorithm/Maximum_Subarray.py					
Kadane's Algorith	https://leetcode.c	HW	Py3	Arrays_Strings_Linked_Lists/Kadanes_Algorithm/Maximum_Product_Subarray.py					

7. String Basics									
Basics	https://leetcode.c	HW	Py3	Arrays Strings Linked Lists/String Basics/Longest Common Prefix.py					
	https://leetcode.c	HW	Py3	Arrays Strings Linked Lists/String Basics/ls_Prefix_In_Sentence.py					
	https://leetcode.c	HW							
Sliding Window			C++	Arrays Strings Linked Lists/Strings Sliding Window/Index_Of_First_Occurrence.cpp					
	https://leetcode.c	Class	Py3	Arrays Strings Linked Lists/Strings Sliding Window/Index_Of_First_Occurrence.py					
	https://leetcode.c	Class	Py3	Arrays Strings Linked Lists/Strings Sliding Window/Rotate_String.py					
	https://leetcode.c	HW	Py3	Arrays Strings Linked Lists/Strings Sliding Window/String_Matching_In_Array.py					
8. String Hashing									
Polynomial Hash	https://leetcode.c	HW							
	https://leetcode.c	HW							
Rabin-Karp Algor	https://acmp.ru/a	Class	C++	Arrays Strings Linked Lists/Rabin_Karp_Algorithm/Substring_Search_Rabin_Karp.cpp					
	https://www.spoj	HW							
	https://codeforce	HW							
9. Pattern Searching in Strings									
KMP Algorithm	https://www.geek	Class	Py3	Arrays Strings Linked Lists/KMP_Algorithm/Substring_Search_KMP.py					
	https://acmp.ru/a	HW							
	https://leetcode.c	HW							
Z Algorithm	https://www.geek	Class	C++	Arrays Strings Linked Lists/Z_Algorithm/Substring_Search_Z_Algorithm.cpp					
	https://leetcode.c	HW							
10. Linked Lists									
Traversal			C++	Arrays Strings Linked Lists/Linked_List_Traversal/PrintLinkedListElements.cpp					
	https://www.geek	Class	Py3	Arrays Strings Linked Lists/Linked_List_Traversal/PrintLinkedListElements.py					
	https://leetcode.c	Class	C++	Arrays Strings Linked Lists/Linked_List_Traversal/ReverseLinkedList.cpp					
	https://www.inter	HW	Py3	Arrays Strings Linked Lists/Linked_List_Traversal/LinkedList_Palindrome_Check.py					
	https://www.hack	HW	Py3	Arrays Strings Linked Lists/Linked_List_Insertion/LinkedList_InsertAt_End.py					
Insertion	https://www.hack	Class	C++	Arrays Strings Linked Lists/Linked_List_Insertion/InsertNodeAtSpecificPosition.cpp					
	https://www.geek	HW							
	https://www.geek	HW							
Search	https://www.hack	Class	C++	Arrays Strings Linked Lists/Linked_List_Search/FindMergePointOfTwoLists.cpp					
	https://leetcode.c	HW	Py3	Arrays Strings Linked Lists/Linked_List_Search/Intersection_of_two_linked_lists.py					
	https://leetcode.c	HW	Py3	Arrays Strings Linked Lists/Linked_List_Search/Intersection_of_two_linked_lists.py					
Loop Detection	https://leetcode.c	Class	Py3	Arrays Strings Linked Lists/Linked_List_Loop_Detection/Linked_List_Cycle.py					
Deletion	https://www.hack	HW	Py3	Arrays Strings Linked Lists/Linked_List_Loop_Detection/Linked_List_Cycle_II.py					
	https://leetcode.c	HW		Arrays Strings Linked Lists/Linked_List_Deletion/Delete_Node_From_Linked_List.py					
Sorting	https://leetcode.c	HW							
	https://www.inter	HW							
	https://leetcode.c	HW							
	https://www.hack	HW							
Doubly Linked Li	https://leetcode.c	HW							
11. Binary & Ternary Search									
Binary Search	https://leetcode.c	Class	Py3	Arrays Strings Linked Lists/Binary_Search/Binary_Search.py					
	https://www.geek	HW	Py3	Arrays Strings Linked Lists/Binary_Search/Floor_In_Sorted_Array.py					
	https://leetcode.c	HW	Py3	Arrays Strings Linked Lists/Binary_Search/First_Last_Position_Sorted_Array.py					
			C++	Arrays Strings Linked Lists/Binary_Search/Sqrt_x.cpp					
	https://leetcode.c	Class	Py3	Arrays Strings Linked Lists/Binary_Search/Sqrt_x.py					
	https://www.geek	Class	Py3	Arrays Strings Linked Lists/Binary_Search/Koko_Eating_Bananas.py					
	https://leetcode.c	Class	Py3	Arrays Strings Linked Lists/Binary_Search/Smallest_Divisor_Given_Threshold.py					
	https://codeforce	HW							
	https://codeforce	HW							
	https://www.geek	Class	C++	Arrays Strings Linked Lists/Binary_Search/Minimum_Days_To_Make_M_Bouquets.cpp					
Ternary Search	https://leetcode.c	HW							
	https://codeforce	HW							
	https://codeforce	Class	C++	Arrays Strings Linked Lists/Ternary_Search/New_Bakery.cpp					
	https://www.code	HW							
	https://www.hack	HW							
12. Greedy Algorithms									
	https://leetcode.c	HW							

Standard Greedy	https://leetcode.c	Class	C++	Arrays_Strings_Linked_Lists/Standard_Greedy_Algorithms/Min_Arrows_Burst_Balloons.cpp
	https://www.geek	HW		
	https://www.geek	HW		
	https://www.geek	Class	C++	Arrays_Strings_Linked_Lists/Standard_Greedy_Algorithms/Job_Sequencing_Problem.cpp
	https://www.geek	HW		
	https://leetcode.c	HW		
	https://leetcode.c	HW		
	https://www.geek	HW		
	https://leetcode.c	Class	C++	Arrays_Strings_Linked_Lists/Greedy_Problems_Arrays/Maximize_Sum_K_Negations.cpp
	https://leetcode.c	HW		
Greedy Problems	https://leetcode.c	HW	Py3	Arrays_Strings_Linked_Lists/Greedy_Problems_Arrays/Maximize_Sum_K_Negations.py
	https://leetcode.c	HW		
	https://leetcode.c	HW		
	https://leetcode.c	Class	Py3	Arrays_Strings_Linked_Lists/Greedy_Problems_Arrays/Candy.py
Greedy Problems	https://www.geek	HW		
	https://leetcode.c	HW		
Greedy Problems	https://leetcode.c	Class	Py3	Arrays_Strings_Linked_Lists/Greedy_Problems_Strings/Largest_Number.py
Stack, Queues, Priority Queues & Heaps				
13. Stacks				
Stacks	https://leetcode.c	Class	Py3	Stacks_Queues_PQ_Heaps/Stacks/Next_Greater_Element_I.py
	https://leetcode.c	HW	Py3	Stacks_Queues_PQ_Heaps/Stacks/Next_Greater_Element_II.py
	https://www.hack	HW		
	https://leetcode.c	Class	C++	Stacks_Queues_PQ_Heaps/Stacks/Valid_Parentheses.cpp
	https://leetcode.c	HW		
	https://leetcode.c	HW		
	https://www.hack	HW		
	https://leetcode.c	Class	C++	Stacks_Queues_PQ_Heaps/Stacks/Largest_Rectangle_in_Histogram.cpp
	https://leetcode.c	HW	Py3	Stacks_Queues_PQ_Heaps/Stacks/Largest_Rectangle_in_Histogram.py
	https://www.geek	HW		
	https://www.geek	Class	C++	Stacks_Queues_PQ_Heaps/Stacks/Restrictive_Candy_Crush.cpp
	https://leetcode.c	HW		
14. Queues				
Queues	https://leetcode.c	Class	C++	Stacks_Queues_PQ_Heaps/Queues/Queue_Using_Stacks.cpp
	https://leetcode.c	HW		
	https://leetcode.c	Class	Py3	Stacks_Queues_PQ_Heaps/Queues/First_Unique_Character_String.py
	https://www.geek	HW		
	https://www.geek	HW		
Deque	https://leetcode.c	HW		
	https://www.geek	Class	C++	Stacks_Queues_PQ_Heaps/Deque/First_Negative_In_Every_Window_Size_K.cpp
	https://www.geek	HW		
Deque	https://leetcode.c	HW		
15. Priority Queue & Heaps				
Heaps and Heap	https://leetcode.c	Class	C++	Stacks_Queues_PQ_Heaps/Heaps_and_Heap_Sort/Sort_Array.cpp
	https://www.geek	HW		
	https://www.geek	HW		
Heap Application	https://leetcode.c	Class	C++	Stacks_Queues_PQ_Heaps/Heap_Applications/Kth_Largest_Stream.cpp
	https://leetcode.c	HW		
	https://leetcode.c	HW		
	https://leetcode.c	Class	C++	Stacks_Queues_PQ_Heaps/Heap_Applications/Top_K_Frequent_Elements.cpp
	https://leetcode.c	HW		
Advanced Heap	https://leetcode.c	Class	C++	Stacks_Queues_PQ_Heaps/Advanced_Heap_Problems/Median_Data_Stream.cpp
	https://leetcode.c	HW		
	https://leetcode.c	HW		
	https://leetcode.c	HW		
Trees & Graphs				
16. Trees & Binary Search Trees				
Tree Representa		Class	C++	Trees_and_Graphs/Tree_Representation/Binary_Tree_Representation.cpp
	https://www.geek	Class	Py3	Trees_and_Graphs/Tree_Representation/Binary_Tree_Representation.py

Tree Traversal	https://leetcode.c	HW							
	https://leetcode.c	HW							
	https://leetcode.c	HW							
	https://leetcode.c	HW							
	https://leetcode.c	Class	C++		Trees_and_Graphs/Tree_Traversal/N_Ary_Tree_Level_Order_Traversal.cpp				
	https://www.geek	HW							
	https://leetcode.c	Class	C++		Trees_and_Graphs/Tree_Traversal/Binary_Tree_Right_Side_View.cpp				
	https://www.geek	HW							
	https://leetcode.c	HW							
Tree Applications	https://leetcode.c	Class	Py3		Trees_and_Graphs/Tree_Traversal/LCA_Binary_Tree.py				
	https://leetcode.c	HW							
	https://codeforce	HW							
	https://leetcode.c	HW							
Binary Search Tr	https://codeforce	Class	C++		Trees_and_Graphs/Tree_Applications/Sonya_Ice_Cream.cpp				
	https://www.code	HW							
	https://codeforce	HW							
	https://leetcode.c	Class	C++		Trees_and_Graphs/Binary_Search_Trees/Search_Binary_Search_Tree.cpp				
Binary Search Tr	https://leetcode.c	HW							
	https://leetcode.c	HW							
	https://leetcode.c	HW							
	https://leetcode.c	Class	Py3		Trees_and_Graphs/Binary_Search_Trees/Maximum_Sum_BST_In_Binary_Tree.py				
Balanced Trees	https://leetcode.c	HW							
	https://leetcode.c	Class	Py3		Trees_and_Graphs/Balanced_Trees/Balanced_Binary_Tree.py				
	https://leetcode.c	HW							
	https://www.geek	Class	C++		Trees_and_Graphs/Balanced_Trees/AVL_Tree_Insertion.cpp				
Balanced Trees	https://www.geek	HW							
	https://leetcode.c	HW							
17. Graphs									
Graph Represent		Class	C++		Trees_and_Graphs/Graph_Representation/Print_Adjacency_List.cpp				
	https://www.geek	Class	Py3		Trees_and_Graphs/Graph_Representation/Print_Adjacency_List.py				
Graph Traversal	https://www.geek	HW							
	https://www.geek	Class	C++		Trees_and_Graphs/Graph_Traversal/BFS_Of_Graph.cpp				
	https://leetcode.c	HW							
	https://leetcode.c	HW							
	https://www.geek	Class	C++		Trees_and_Graphs/Graph_Traversal/DFS_Of_Graph.cpp				
	https://leetcode.c	HW							
	http://codeforces	HW							
	https://leetcode.c	Class	Py3		Trees_and_Graphs/Graph_Traversal/Flood_Fill.py				
	http://codeforces	HW							
Disjoint Sets	https://leetcode.c	HW							
	https://www.spoj	HW							
		Class	C++		Trees_and_Graphs/Disjoint_Sets/Union_Find_By_Rank.cpp				
	https://www.geek	HW			(Union by size)				
	https://leetcode.c	Class	Py3		Trees_and_Graphs/Disjoint_Sets/Redundant_Connection.py				
	https://www.geek	HW							
	https://www.geek	Class	C++		Trees_and_Graphs/Disjoint_Sets/Minimum_Spanning_Tree_Kruskals.cpp				
	https://leetcode.c	HW							
	https://leetcode.c	HW							
Minimum Spanni	https://www.geek	Class	C++		Trees_and_Graphs/Minimum_Spanning_Trees/Minimum_Spanning_Tree_Prims.cpp				
	https://leetcode.c	HW							
	https://codeforce	Class	C++		Trees_and_Graphs/Minimum_Spanning_Trees/Shichikuji_And_Power_Grid.cpp				
	https://www.hack	HW							
Topological Sorti	https://www.hack	HW							
	https://leetcode.c	HW							
	https://leetcode.c	HW							
	https://leetcode.c	HW							
	https://www.hack	HW							
	https://cses.fi/pro	HW							
	https://www.geek	Class	C++		Trees_and_Graphs/Shortest_Path/Undirected_Unweighted_Graph_BFS.cpp				

Shortest Path	https://www.geek	HW							
	https://www.geek	HW							
	https://codeforce	HW							
	https://www.geek	Class	C++	Trees_and_Graphs/Shortest_Path/Weighted_Graph_Dijkstra.cpp					
	https://leetcode.c	HW							
	https://leetcode.c	HW							
	https://leetcode.c	HW							
	https://www.geek	Class	Py3	Trees_and_Graphs/Shortest_Path/Bellman_Ford.py					
	https://leetcode.c	HW							
	https://leetcode.c	HW							
Shortest Path	https://leetcode.c	Class	Py3	Trees_and_Graphs/Shortest_Path/Number_Ways_Arrive_At_Destination.py					
	https://codeforce	HW							
Dynamic Programming									
18. DP on Arrays & Matrices									
Standard Array &	https://leetcode.c	HW							
			Py3	Dynamic_Programming/Standard_Array_Matrix_DP/Longest_Increasing_Subsequence.py					
	https://leetcode.c	Class	C++	Dynamic_Programming/Standard_Array_Matrix_DP/Longest_Increasing_Subsequence.cpp					
	https://leetcode.c	HW							
	https://www.geek	HW							
	https://www.geek	HW							
	https://www.hack	Class	Py3	Dynamic_Programming/Standard_Array_Matrix_DP/Coin_Change_Problem.py					
	https://www.geek	HW							
	https://leetcode.c	HW							
	https://leetcode.c	HW							
Array DP	https://www.geek	Class	C++	Dynamic_Programming/Array_DP/Minimal_Cost.cpp					
	https://www.hack	HW							
			C++	Dynamic_Programming/Array_DP/House_Robber.cpp					
	https://leetcode.c	Class	Py3	Dynamic_Programming/Array_DP/House_Robber.py					
	https://leetcode.c	HW							
	https://codeforce	HW							
Matrix DP	https://leetcode.c	HW							
	https://leetcode.c	Class	C++	Dynamic_Programming/Matrix_DP/Unique_Paths_II.cpp					
	https://leetcode.c	HW							
	https://leetcode.c	HW							
	https://www.geek	Class	C++	Dynamic_Programming/Matrix_DP/Chocolates_Pickup.cpp					
	https://www.hack	HW							
Matrix DP	https://www.hack	HW							
19. DP on Strings									
Standard String I	https://leetcode.c	HW							
	https://www.geek	HW							
	https://leetcode.c	HW							
	https://www.geek	Class	Py3	Dynamic_Programming/Standard_String_DP/Palindromic_Partitioning.cpp					
	https://www.geek	HW							
	https://leetcode.c	HW							
		Class	Py3	Dynamic_Programming/String_DP/Sam_And_Substrings.py					
	https://www.hack	Class	C++	Dynamic_Programming/String_DP/Sam_And_Substrings.cpp					
	https://codeforce	HW							
	https://leetcode.c	HW							
String DP	https://leetcode.c	Class	C++	Dynamic_Programming/String_DP/Shortest_Common_Supersequence.cpp					
	https://www.hack	HW							
	https://leetcode.c	Class	C++	Dynamic_Programming/String_DP/Wildcard_Matching.cpp					
	https://atcoder.jp	HW							
	https://codeforce	HW							
20. DP on Trees & Graphs									
Standard Tree &	https://www.geek	HW							
	https://www.geek	HW							
	https://www.geek	Class	C++	Dynamic_Programming/Standard_Trees_Graphs_DP/Floyd_Warshall.cpp					
	https://www.geek	HW							
	https://leetcode.c	HW							
	https://www.geek	HW							
Standard Tree &	https://leetcode.c	HW							
	https://www.geek	HW							

Tree DP	https://leetcode.c	Class	C++	Dynamic_Programming/Tree_DP/Sum_Of_Distances_In_Tree.cpp				
	https://codeforce	HW						
Graph DP	https://www.hack	HW						
	https://leetcode.c	Class	Py3	Dynamic_Programming/Graph_DP/Largest_Color_Value_Directed_Graph.py				
	https://leetcode.c	HW						
	https://leetcode.c	Class	Py3	Dynamic_Programming/Graph_DP/Cat_And_Mouse.py				
	https://leetcode.c	HW						
	https://codeforce	HW						
	https://codeforce	HW						