Data Structures and Algorithms
Project Evaluation Sheet

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Implementation Analysis

Algorithm/Data Structure	Used? (Yes/No)	How and where?	Space Efficiency	Time Efficiency
Arrays	YES	Used in hashing to store user id	O(1)	O(n)
Structures	YES	Used to store events, venue, Area of the cities , user login info	O(1)	O(n)
List	NO			
Stack	NO			
Queue	NO			
Binary Tree	NO			
Binary Search Tree	NO			
AVL Tree	NO			
2-3 Tree	NO			
Red-Black Tree	NO			
Trie	NO			
Heap	NO			
Lookup Table	NO			
Sparse Table	NO			
Fenwick Tree	NO			
Segment Tree	NO			
Skip List	NO			
Union-Find	NO			
Hashing	YES	We used to books the particular date for user of the month	O(1)	O(n)
DFS	YES	Used to traverse the area location from graph	O(v+e)	O(v+e)
BFS	NO			
Bubble Sort	NO			
Selection Sort	NO			
Insertion Sort	NO			
Quick Sort	YES	Used to sort venue halls on its cost	O(n)	O(nlogn)
Merge Sort	NO			

Brute Force String Search	YES	Used to search the area of user in our considered domain	O(1)	O(n*n)
Rabin Karp	NO			
Boyer-Moore	NO			
Knuth-Morris-Pratt	NO			
Heap Sort	NO			
Kruskal	NO			
Prim	NO			
Dijkstra	YES	Used to find shortest path from user area to all area	O(v)	O(v*v)
Floyd	NO			
Warshall	NO			
Bellman-Ford	NO			
Any Other	NO			

Other Analysis:

We have did analysis of the different venue halls present in the single venue with its credential details and the events the the venue providing

We have considered venue as UK27 and Belagavi city where we considered some 13 areas and the graph between them

In the booking details we just booking the particular date for particular user id number and displaying it to the manager

Number of Lines of Code Written: 1391

Number of Functions:25

Design Techniques and Principles used:

1) Bruth force

2) Iterative technique Back tracking

3) Divide and conquer