JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY, Noida

Department of CSE & IT



Bachelor of Technology, 4th Semester

EFFICIENT DELIVERY SYSTEM

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2

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***PROBLEM STATEMENT***

In this era when door to door services are booming at a substantial rate and still it lacks in a efficient delivery system for the company as the number of employees are much more than needed and it is not profitable for them.

***OUR SOLUTION***

So, we are proposing a better alternative from the present delivery system. Here when one of the riders is delivering a package and another customer places an order and the rider is near the pick-up zone and if he is able to pick up and deliver the package within the time limit then the rider will be assigned with that order also else a new rider will be assigned to that package who is nearest to that package.

**ALGORITHM USED :**

**FLOYD-WARSHALL**

the **Floyd–Warshall algorithm** is a algorithm for finding [shortest](https://en.wikipedia.org/wiki/Shortest_path_problem) path in a [weighted graph](https://en.wikipedia.org/wiki/Weighted_graph) with positive or negative edge weights (but with no negative cycles). A single execution of the algorithm will find the lengths (summed weights) of shortest paths between *all* pairs of vertices.

**The reason why we did not used Dijkstra**

The time complexity for Dijkstra algorithm to find all the shortest path between every

Node is O(V^3logV) and of Floyd-Warshall algorithm is O(V^3) which is much efficient for Big Data.

A screenshot of a computer screen

Description automatically generated**SCREENSHOT OF OUTPUT**

**A screenshot of a computer

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**A picture containing text, whiteboard, map

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