Abstract

On this final project, the approach that has been done is different with VRP (Vehicle Routing Probel). That approach are the distance using scale and node is not a perfect graph, and node that is served only node that have a demand. There are 3 (three) parameters that in concerned, that is vehicle capacities, demand, and distance. That three parameters have dynamic character. Combination demand and possibility of route using BFS (Breadth First Search) method. And to find a shortest path between node, using BnB (Branch and Bound) method. That two methods have a optimal character, with the meaning will find the best solution. First combine client's demand using BFS so that forming a BFS demand tree. While do the BFS demand process, also do the BnB process. After that, ondes in BFS demand is grouping by demand dan distance, so that will get a possibilith route. From the possibility route, combine again with BFS. So that will get a list of solution possibility. From list of solution possibility, chose solution that has smallest cost. Pursuant of result examination, using BFS dan BnB will give a optimal solution

Keywords: VRP (Vehicle Routing Problem), BFS (Breadth First Search), dan BnB (Branch and Bound)