

Drone Collector

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Abstract / Summary

This project aims for the development of a program to model a series of shops or warehouses to be visited by a drone to collect items. where customers will have a “purchase order” of items to collect, that could be at any of the locations. This program should read in the inventories (stock on hand) at each location, and store this using appropriate ADTs. The distances between locations will be given, and decisions on which locations to visit to complete the order can be optimized for the shortest distance. A list of unfilled items should be given if you cannot complete the order.

The major object we want to achieve is to design a fuel and time efficient model which gives a shortened path to the drone even before flight.

Functional requirements and Architectural analysis

Functional Requirements

- Loading Inventory from text files
- Loading Path information from text files
- Loading prices and discount threshold
- Searching inventory
- Updating inventory
- Removing inventory
- Taking multiple orders at a time
- Drone will collect those items in order from different locations
- The drone's path will be the shortest
- The transaction detail will be saved

These functional requirements meet architectural constraints both by budget and by effort. Actually this business consists of multiple branches from where a drone will collect the items which the customer ordered. So for that reason, these listed functional requirements are very fundamental and crucial to run the business effectively.

Similar Apps

List down existing apps on Play store/Appstore similar to your project functionality

	AppName	Download Link	No of Downloads
1	Upper Route Planner	https://play.google.com/store/apps/details?id=upper.team.route.planner.navigation.routing.app	100K+
2	Route4me	https://play.google.com/store/apps/details?id=com.route4me.routeoptimizer	50K+
3	Smart Route Planner	https://play.google.com/store/apps/details?id=tr.com.ussal.smartrouteplanner	100K+

Appendix – Mockups

