

Data Structures and Algorithms

Term Project

Project Description

You are required to implement/simulate business of Distribution Company Management System. The Distribution company has employees and riders. Riders get the orders from the shopkeepers, and very next day order need to be delivered. Fuel of vehicles used by riders is paid by company, so we also need to minimize the cost of fuel by managing routes in proper mechanism. Each rider is assigned different area/route. After fulfillment the requirements of order, data should be saved for analytics. At end of month, management need the performance reports of employees and riders as well. Employees manages the data of riders/routes. The routes which need to be operated by riders are also managed by your software.

Our Expectation

1. The provided description can be interpreted in multiple ways, students are required to expand the requirement and should write the list of use cases.
2. Type of users should be identified.
3. All the use cases should explicitly highlight the use of different data structures (We expect you to use linear and non-linear data structures both). Maximizing the use of data structures in your analysis will lead to good grade.
4. Group of 2 to 3 members is allowed. Cross section/gender groups are not allowed.
5. Any language can be used.
6. Only desktop applications are allowed.
7. For your help, a [project](#) is being shared with you. Click here to view project details. The project provides the insights of a distribution company. This project should be understood by all students. Short quiz will also be taken from the document.

What to submit:

1. Submit your group details to get the project Id on eduko by November 20, 2022 9pm.
2. Project Requirement and Design Document will be submitted (by November 30, 2022) included but not limited to following:
 - a. Operational Details understood by team
 - b. List of Use cases
 - c. Wireframes (in any professional tool) – No change will be allowed later this time
 - d. List of used data structures against all use cases
 - e. Project Plan with all tasks properly defined.
 - f. Object Oriented Design
 - g. Plan to simulate/populate the reasonable amount of data
3. We expect you to submit above details in reasonable sequence of information in formal document.

Note: Other deadlines will be shared later