Department of Computer Science & Engineering
Indian Institute of Technology, Kharagpur
CS69202: Software Engineering Lab, Spring 2023
Practise Problems – 1

Submission Date – 9th January 2023

Question: Write a C program for the following:

In an online medicine shop, there are the following set of relevant entities:
- Customer
- Product
- Shops and Warehouses
- Delivery agent.

All entities have a unique id (int), and a name (String). Additionally, *Customers* have a zip code (int) and a list of purchased products, which are initially empty. Shops and Warehouses have a zipcode (int), an inventory of the number of available copies of all products (You can assume that there are a fixed number of products which does not change). A delivery agent has a zipcode (int), and the number of products delivered.

Your task is to design and implement a C/C++ program implementing the following functionalities:
1. Create, delete and print entities of each type. For delete print all entities of a type and then provide option to choose one.
2. Add a certain number of copies of a product to a shop.
3. Add an order of a product from a customer.
4. Process an order (can be satisfied only if the product is available at a shop in the customer's zipcode). Also assign a delivery agent who has delivered the least number products.
5. List all the purchases made by a customer.
6. List inventory of a shop (Products and counts).
7. A master text-based interface to access all the above functionalities.