Group -14
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Database Management Project

Title: Database for managing the warehouse part of the online retail business.

Scope of Database:

- Our job is to manage the data regarding the storage and shipment of the goods across many warehouses and distribution centers.
- We'll be dealing with the inflow and outflow of goods from suppliers to warehouses to distribution centers.
- But we won't be dealing with the data regarding how the goods are made available to the customer from the distribution center.

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Supplier -> Warehouse -> distribution center -> customer
|--------------  our scope -----------------|
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Description/Requirements:

- It is a database for the transportation backbone of an online retail business.
- This backbone is made up of two types of establishments:
    1. Warehouse – to store goods temporarily.
    2. Distribution center – last point after which orders are delivered individually to the customer.
- It must store details about the following:
    - Warehouse – id, name, address, transport routes from and to other establishments, capacity, types of goods it can store.
    - Distribution center- id, name, address, transport routes from other establishments.
    - City- id, name.
    - Supplier- id, name, number, email.
    - Employee – id, which employee works where, name, address, salary, type of employee.
    - Item – id, class of the item, its cost at a particular warehouse, volume, weight.
    - Item class – id, item type, type.
    - Transport – id, when a particular transport instance is scheduled, and which order will it be carrying. E.g.: a truck at X time from Y to Z carrying G.
    - Transport vehicle – id, Vehicle type, number, capacity.
    - Order: id, item, quantity, due date.
    - Routes: id, between which two points in a network a direct transport is possible and at what cost.

Queries that the database system should be able to answer:

1. Get the scheduled route of a given order.
2. List of orders that will be/was carried by a given transport instance.
3. List of all employee working at a given establishment.
4. List available transports between two establishments.
5. List warehouses where a given item is available and in what quantity.
6. List the distribution centers which are in a given city.
7. Get details of a given order.
8. List all managers of a given region.
9. List all warehouse that can store a particular class of items.
10. List all suppliers of a given item.