**Session 1**

1. **Describe in writing the transactions you wish to be able to carry out (insertions, eliminations, retrievals of information).**

SupplyChain of products. Get information about products, who supply and distribute it and which brand is buying.

**2. Identify the entities involved in all of these transactions.**

Product, Supplier, Distributor, Banner

**3. Identify the attributes of each entity and point out which one to choose as key.**

Product = (Id, Name, Category, Price, Format)

Supplier = (Id, Name, Location, Category)

Distributor = (Id, Name, Location)

Banner = (Id, Name, Location)

**4. Sketch an ER diagram indicating all your entities and the presence of relationships,  
naming each relationship.**

Product

Supplier

Produces

Pickups

Pickups

Distributor

Banner

Deliveries

**5. Indicate the specific pluralities of each relation in the ER diagram.**

Produces, Deliveries, Pickups

**6. Describe the table structures needed for the proposed ER diagram.**

A Company, who owns restaurants (banners) chain need to supply all products/ingredients necessary to prepare meals and disposables. Products are buying to suppliers (food chains, farms producer etc.) and delivery by distributors to banners (restaurant, coffees shop)

**7. Identify the data type and any applicable restrictions to each attribute, including whether it may take on null values.**

|  |
| --- |
| Product |
| Id |
| Name |
| Category |
| Format |
| Quantity (number) or null |
|  |

|  |
| --- |
| Supplier |
| Id |
| Name |
| Category |
| Location |
|  |
|  |

|  |
| --- |
| Distributor |
| Id |
| Name |
| Category |
| Location |
|  |
|  |

|  |
| --- |
| Banner |
| Id |
| Name |
| Location |
|  |
|  |
|  |

**8. In SQLite notation, tested either in Replit or Colab, create the corresponding tables.**

supplyChain

|  |  |  |  |
| --- | --- | --- | --- |
| Product | Supplier | Distributor | Banner |
| cheese | Saputo | GFS | PizzaHut |
| chicken | Exceldor | D&B | Scores |
| Frozen fruits | Alasko | MID | TuttiFrutti |
| Fish | Highliner | JD | Sushi Shop |
| cups | Polar | D&B | Cafe Depot |
|  |  |  |  |
|  |  |  |  |

CREATE TABLE supplyChain (Product, Supplier, Distributor, Banner);

INSERT INTO supplyChain (Product, Supplier, Distributor, Banner) VALUES ('oil', 'Bunge', 'FLALL','Baton Rouge');

INSERT INTO supplyChain (Product, Supplier, Distributor, Banner) VALUES ('beverage', 'Pepsi', 'GD','Thai Express');

SELECT \* FROM supplyChain;

**9. Add some (manually defined or pseudo-randomly generated) data into each table, respecting the ER diagram you designed.**

A Company, who owns restaurants (banners) chain need to supply all products/ingredients necessary to prepare meals. Products are buying to suppliers (food chains, farms producer etc.) and delivery by distributors to banners (restaurant, coffees shop)

TABLE

Sources:

<https://www.gliffy.com/blog/how-to-draw-an-entity-relationship-diagram>

https://opentextbc.ca/dbdesign01/chapter/chapter-8-entity-relationship-model/