# P3. Group-18 Database Management and Database Design

# Database System for an E-Commerce

**A diagram of a product

Description automatically generated**

**Description of the changes made in the Entity Relationship Diagram:**

The Inventory entity which was initially introduced to track the stock of the products of a retailer has now been replaced by the associative entity Stock which forms a relationship between Product and Retailer. The attributes of newly introduced associative entity are Stock Id, Quantity, and Price. The definition of these attributes are as follows:

**Stock Id:** The Stock Id represents a surrogate key which uniquely identifies the stock of product sold by a retailer.

**Quantity:** The Quantity defines the number of units of product that the retailer has in his stock.

**Price:** Price defines the amount demanded by each retailer for the same product.

In Addition to this, the relation between Product and Order Item is removed because the pricing of each product depends upon the individual retailer. Hence, a new relation is introduced between Stock and Order Item.

In all the entities to represent referential integrity, the foreign key attributes have been mentioned.

**Logical Data model:**

**A diagram of a customer

Description automatically generated with medium confidence**