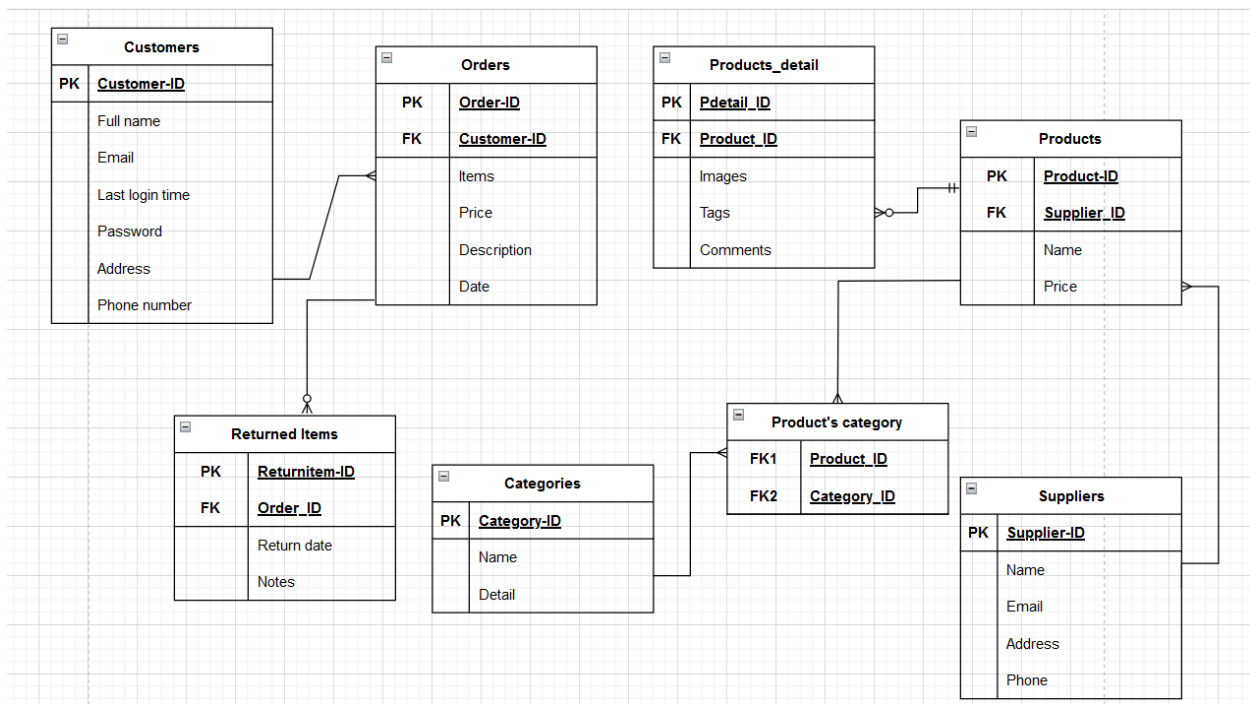


# ERD



Entity-Relationship Diagram (ERD) is a representation of the data model of a database. It is a useful tool to illustrate the base of a database. There are some essential elements and ideas in an ERD such as:

Entity: shown as a table in the diagram

Attribute: features in tables (detail of entity)

Primary key (PK): It is an attribute in tables, which it is unique for every table

Foreign key (FK): It is a field that makes relationships between tables

Relationship: lines with different types like one-to-many, many-to-many, one-to-one, etc.

I designed eight tables for an online shop.

**The customers table** includes customer\_id as a primary key and attributes like name, email, last login time, password, address, and phone number. This table has a one-to-many relationship with the orders table. It means that each customer can have many orders.

**Orders table** has order\_id as the primary key and customer-id as a foreign key. The detail is related to the price of orders, Items of orders, Date, and description. This table has a one-to-many relationship with returned items (Each order can have zero or many returned items)

**Returned items table** includes a returnitem\_id as primary key and order\_id as foreign key. The attributes are return dates and notes about a product that has an issue.

**Products\_detail table** has two keys that are defined (PM: Pdetail\_id, FK: Product\_id) and attributes such as images, tags, and comments. This table has a relationship with products which means each product can have zero or many details.

**Products table** has Product\_id as primary key and supplier\_id as a foreign key to connect with supplier table. This table includes two attributes like name and price and has a one-to-many relationship with the supplier table, which defines that each supplier can have many different products. There is another many-to-many relationship that it is between products and categories but I designed a conjunction table between them called products'category.it includes two foreign keys like Product\_id and category\_id. This table has two one-to-many relationships with the products table and categories table.

**Categories table** contains category\_id as primary key and name, and details as attributes.

**Suppliers table** has a supplier\_id (PM) and name, email, address, and phone as attributes.