Projet Conception d'une base de données SQLite et intégration avec Python

***Natural Language Description**:* An eco-friendly wooden toothbrush company uses a relational database for the management of its information system. Customers place orders that contain toothbrushes made up of materials supplied by a supplier. More specifically, we are interested in the following notions:

Customers: Each customer can be identified by their customer number. For each customer, we also know their name and email. One customer can place zero or more orders, as a customer may have registered but has not yet placed an order.

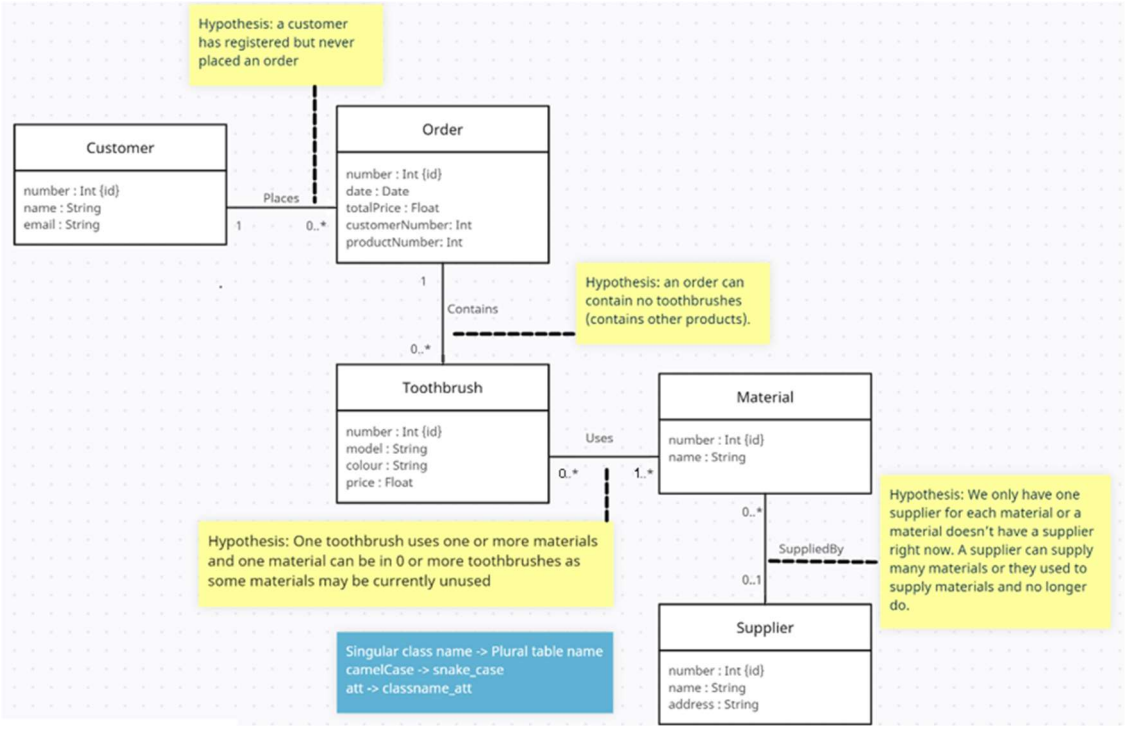
Orders: Each order can be identified by an order number. An order has a date and total price. Multiple orders can be placed by a single customer. One order contains zero or more toothbrushes, as an order can contain other products instead.

Toothbrushes: Each toothbrush is identified by a toothbrush number. A toothbrush has a model, colour, and price. One toothbrush uses one or more materials.

Materials: Each material is identified by its material number. A material also has a name. One material can be used in zero or more toothbrushes as the material may be currently unused. A material may have zero or one current supplier, as we can imagine we use one supplier for each material, and we may not currently have a supplier for a certain material.

Suppliers: Each supplier is identified by their supplier number. We also know each supplier's name and address. A supplier may supply zero or more materials, as one supplier may supply many materials, or they currently do not supply any materials.

***UML Diagram**:*



(The blue box represents the name translation rules)

***Relational Model**:*

Customers (customer_number, customer_name, customer_email)

Orders (order_number, order_date, order_total_price, customer_number, product_number)
/* having product_number is more generic than having toothbrush_number */

Toothbrushes (toothbrush_number, toothbrush_model, toothbrush_colour, toothbrush_price)

Materials (material_number, material_name)

ToothbrushesMaterials (toothbrush_number, material_number) /* following the many-to-many association */

Suppliers (supplier_number, supplier_name, supplier_address)

Orders[customer_number] ⊆ Customers[customer_number]

ToothbrushesMaterials[toothbrush_number] ⊆ Toothbrushes[toothbrush_number]

ToothbrushesMaterials[material_number] ⊆ Materials[material_number]

/*As orders can contain products other than toothbrushes, we don't need to constrain product_number */