**Question#1:**

Each customer has unique id and is linked to exactly one **account**. Account owns shopping cart and orders. Customer could register as a web user to be able to buy items online. Customer is not required to be a web user because purchases could also be made by phone or by ordering from catalogues. Web user has login name which also serves as unique id. Web user could be in several states - new, active, temporary blocked, or banned, and be linked to a **shopping cart**.

Account owns customer orders. Customer may have no orders. Customer orders are sorted and unique. Each order could refer to several **payments**, possibly none. Every payment has unique id and is related to exactly one account.

Each order has current order status. Both order and shopping cart have **line items** linked to a specific product. Each line item is related to exactly one product. A product could be associated to many line items or no item at all.

**Question#2:**

A customer places an order with a supplier. The order is for various numbers of different kinds of parts; the distinction between different kinds of parts can be ignored for the purposes of this exercise. An order consists of a number of order lines; each line specifies a particular part from the supplier’s catalogue. In response to an order, the supplier makes up a delivery, consisting of all ordered parts.

**Question#3:**

The UK banking system consists of a number of banks. Each bank has a number of branches, each identified by a unique sort code. Banks maintain accounts, each with a unique account number; in addition, each account is held at a particular branch of the bank. Some accounts allow cheques to be written, others don’t. Each cheque is identified by a cheque number.

Represent this situation as a domain model , paying particular attention to the use of qualified associations. Explain any assumptions you are making.