

For the scenario below identify the entities, their attributes and appropriate keys

The Angel Warehouse

The Angel Warehouse stores items for its parent company. The warehouse is organised into bays, which are storage areas, but the items themselves are stored in bins. Each bay contains a number of bins. Each bay is identified by a unique bay number and the bay location and the height of the bay are recorded. Each bin has a different number within the bay, always starting with bin no. 1, and while some bays have only 5 bins some have over 50. The size of each bin is recorded.

Some bays have a parking spot for one fork lift to help move items round the warehouse and lift items into bins. Each fork lift is allocated to a bay. Each fork lift has a unique equipment number and the maximum carrying weight of the fork lift needs to be known. Some fork lifts are petrol driven while some are electric.

For all bins the maximum loaded weight must be known.

When an item is taken into the warehouse it is assigned a unique number and the date is recorded as well as the item weight. Bins can store a number of items and when an item is put in a particular bin this date is also recorded. Items can be moved back and forth between bays and bins to optimise the warehouse storage.

Key Info

Parent company

Quantity

Storage area

Unique ID

Company (entity)

Would the company itself be used to hold the unique id of every bay to be used like in 2NF

Bay (entity)

Unique bay number (primary key)

Bay height

Num of bins

Num of forklifts

Bay location

Forklift (entity)

Unique equipment num (primary key)

Max carry weight

Electric or petrol

Bins (entity)

Number of items in a bin

Bins unique id no between 1 to 50 where each bay probably has its own table for bins

Item (entity)

Weight of each item

Date

Unique item id

Attributes

High of the bays

Maximum load of each bin

Size of each bin

Weight of each bin

Number of items in the bins

Appropriate keys

Primary key for the bay number

Primary key Unique id for each item