

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.

Entities

Attributes

Bay (Entity)

- Bay number (Primary key)
- Bay location
- Bay height
- Parking spot (Yes/No)
- Forklift equipment number (Foreign key)

Bin (Entity)

- Bin number (Primary key)
- Bay number (Foreign key)
- Bin size
- Maximum loaded weight

Bin number + Bay number = Composite primary key

Forklift (Entity)

- Forklift equipment number (Primary key)
- Bay number (Foreign key)
- Maximum carrying weight
- Type (Petrol/Electric)

Item (Entity)

- Item number (Primary key)
- Bin number (Foreign key)
- Date taken into warehouse
- Date put in bin

Item weight