

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.

Database title: Warehouse

Entity 1: Bays

- ID no. [KEY]
- Location
- Height
- Forklift Availability

Entity 2: Bins

- ID no. (no. 1...) [KEY]
- Size
- Max Loaded Weight
- Number of Items

Entity 3: Forklifts

- ID no. [KEY]
- Max Carrying Weight
- Type of power (Petrol or Electricity)

Entity 4: Items

- ID no. [KEY]
- Weight
- Date received into warehouse
- Date assigned to a bin

Relationships:

Bays have Bins and Forklifts in them. Bins are assigned to Bays and have a number of items. Forklifts are assigned to Bays and Items move between Bays and Bins