

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.

Entity 1: Bay

Primary Key: unique bay number

Foreign Key: bin number

Attributes: location, height, bin quantity

Entity 2: Bin

Primary Key: bin number

Attributes: size, max loaded weight, quantity of stored items

Entity 3: Fork lift

Primary Key: equipment number

Foreign Key: bay number

Attributes: max carrying weight, energy source (petrol or electric)

Entity 4: Item

Primary Key: item number

Foreign Keys: Assigned bins and bays (bin and bay number)

Attributes: date of assignment, item weight