

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

Entities

Attributes

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**.

Bays (Entity)

- Bay ID – (Key)
- Bay Location –
- Height of Bay –
- No. of Bins in Bay –

Bins (Entity)

- Bin No. in Bay – (Key)
- Size of Bin –
- Max Loaded Weight –

Fork Lift (Entity)

- Equipment ID – (Key)
- Max Weight –
- Bay Allocation – (Key)
- Type of Fork Lift –

Item (Entity)

- Item ID – (Key)
- Date of Arrival –
- Item Weight –
- Date when Stored in Bin – (Key)

Warehouse Storage Optimisation (Entity)

Bay ID – (Key)

Bin No. in Bay – (Key)

Item ID – (Key)

Date when Stored in Bin – (Key)