

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

Key: Highlighting the entities, attributes and appropriate keys as the complementary colours

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 forklift to help move items round the warehouse and lift items into bins. Each **fork lift** is allocated to a bay. Each forklift has a **unique equipment number** and the **maximum carrying weight** of the fork lift needs to be known. Some forklifts 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:

- Warehouse
- Bay
- Bin
- Forklift
- Item

Attributes:

-Warehouse

- Location
- Height

-Bay

- Parking spot
- Foreign key: forklift
- Unique bay number (**primary key**)

-Bin

- Size
- Number of items
- Different number (**primary key**)

-Forklift

- a unique equipment number (**primary key**)
- maximum carrying weight
- type: petrol/electric driven

-Item

- unique number (primary key)
- date
- item weight

