

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 – Item

Attributes – Item Number, Entry Date, Item Weight

#### Entity – Bay

Attributes – Bay Number, Bay Location, Bay Height, Number of Bins

#### Entity – Bin

Attributes – Bin Number, (Foreign) Bay Number, Bin Size, Number of Items, Max Load

Weight

#### Entity – Fork Lift

Attributes – Equipment Number, Max Carrying Weight, Type, (Foreign) Bay Number

#### Event Action Entities:

##### Entity – Item Stored

Attributes – (Foreign) Item Number, (Foreign) Bin Number, (Foreign) Bay Number, Date of Storing