

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.

Candidate Entities & Attributes – Red

Candidate Keys Primary & Foreign (Some not explicitly stated) – Blue

Bays – Unique bay number, bay location, height of the bay, parking spot,

Bins – Unique bin id, bin number, bin size, bin maximum loaded weight, Unique bay number

Fork lifts – Unique equipment number (fork lifts), maximum carrying weight of the fork lift, fork lift type, Unique bay number

Items – Unique number for items, date recorded (when it was taken into the warehouse), item weight,

Item locations – Unique item location id (to track multiple items), date of when item is put in a bin, Unique bay number, Unique bin id, Unique number for items