

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.

Bay (Entity)

Bay_ID (Primary key)

Bay_Location

Bay_Height

Has_Parking_Spot

Bin (Entity)

Bin_ID (Primary Key)

Bay_ID (Foreign Key)

Bin_Number

Bin_Size - The size of the bin (in cubic meters)

Max_Loaded_Weight

Forklift (Entity)

Forklift_ID (Primary Key)

Bay_ID (Foreign Key)

Max_Carrying_Weight

Fuel_Type

Item (Entity)

Item_ID (Primary Key)

Weight

Date_Received

Current_Bin_ID (Foreign Key)

Bin_Item (Relationship between Bin and Item) (Entity)

Item_ID (Foreign Key)

Bin_ID (Foreign Key)

Storage_Date

Movement_Date

