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.

Entities
Primary keys
Attributes
Foreign keys
Composite key

Entity:
Bay

Primary key:
bay_id

Attributes:
number_of_bins
bay_location
bay_height

Entity:
Bin

Foreign key:
bay_ID

Composite key:
bin_number

Attributes:

bin_size
maximum_loaded_weight

Entity:

Forklift

Primary key :

forklift_id

Foreign key:

bay_id

Attributes:

maximum_carrying_weight
fuel_type

Entity:

Item

Primary key :

item_id

Foreign key:

bin_id
bay_id

Attributes:

date_taken_to_warehouse
date_item_added_to_bin
maximum_carrying_weight
