

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/Attributes:

-Bay:

- Bay\_ID (primary key),
- Bin\_ID (foreign key)
- Equipment\_ID (foreign key)
- Location,
- Height
- Number of bins.

- Bin:

- Bin\_ID (Primary key)
- Bay\_ID (Foreign key)
- Item\_ID (Foreign key)
- Size
- Maximum Loaded weight

-Forklift:

- Equipment\_ID (primary key)
- Bay\_ID (foreign key)
- Max carrying weight
- Electric/Petrol

-Item:

- Item\_ID (primary key)
- Bay\_ID (foreign key)
- Bin\_ID (foreign key)
- Warehouse allocation Date
- Weight
- Bin Date