

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)

- bayNumber – 1 (PK)
- bayLocation – West Wing, 2nd floor
- bayHeight – 20ft
- isParkingSpot - True

Bin (Entity)

- bayNumber – 1 (CK/FK)
- binNumber – 1 (CK)
- binSize – 5ft
- binMaxLoadWeight – 1000kg

Fork Lift (Entity)

- liftNumber – 1 (PK)
- bayNumber – 1 (FK)
- liftMaxCarryWeight – 200kg
- isPetrolDriven – False

Item (Entity)

- itemNumber – 1 (PK)
- itemReceivedDate – 21.09.24
- itemAssignedDate – 22.09.24
- itemWeight – 20kg
- binNumber – 1 (FK)
- bayNumber – 1 (FK)