

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 (primary key)
- BayLocation
- BayHeight
- ForkliftParkingSpot

#### Bin (Entity, Composite key determined: BinNumber, BayNumber)

- BinNumber (primary key)
- BayNumber (foreign key)
- BinSize
- MaximumLoadedWeight

#### Forklift (Entity)

- EquipmentNumber (primary key)
- MaximumCarryingWeight
- BayNumber (foreign key)
- FuelType

#### Item (Entity)

- ItemNumber (primary key)
- DateRecorded
- ItemWeight

#### BinItem (Entity, Composite key determined: BinNumber, BayNumber, ItemNumber)

- BinNumber (foreign key)
- BayNumber (foreign key)
- ItemNumber (foreign key)
- DateRecorded