

Minimal Set of Functional Dependencies for Each Relation

Entity Sets

1. Employee

- FDs:
 - $\text{EmpID} \rightarrow \text{name, role}$

2. Inventory

- FDs:
 - $\text{upc} \rightarrow \text{description, quantity, vendor_id}$

3. Sales

- FDs:
 - $\text{receiptNo} \rightarrow \text{date}$

4. Customers

- FDs:
 - $\text{CustID} \rightarrow \text{name}$

5. Vendor

- FDs:
 - $\text{vendor_id} \rightarrow \text{vend_name}$

Relationships

7. Sells

- FDs:
 - $\text{receiptNo, upc} \rightarrow \text{price}$
- The FD indicates that a specific product (upc) on a specific sales receipt (receiptNo) uniquely determines the price at which it was sold.