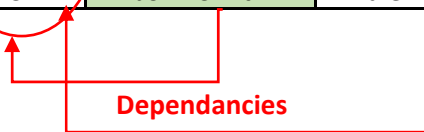


de-normalized table ORDERS

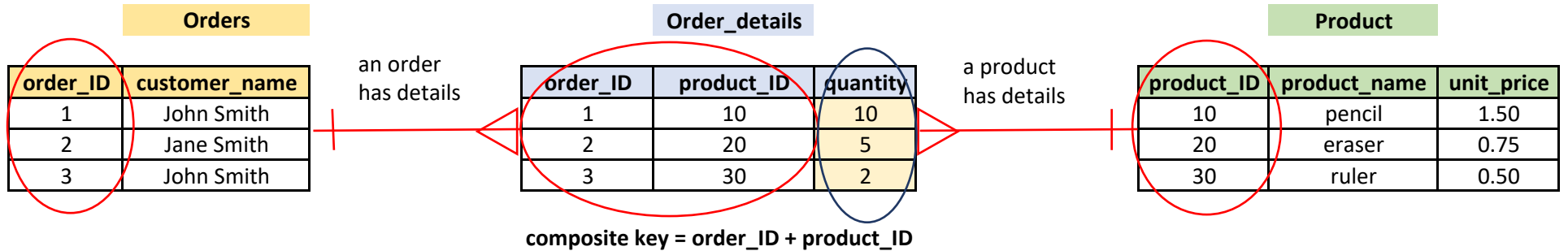
PK

| order_ID | customer_name | product_name | quantity | unit_price |
|----------|---------------|--------------|----------|------------|
| 1 | John Smith | pencil | 10 | 1.50 |
| 2 | Jane Smith | eraser | 5 | 0.75 |
| 3 | John Smith | ruler | 2 | 0.50 |

Dependencies



3NF



de-normalized table EMPLOYEES

PK

| employee_ID | employee_name | department | manager | phone# | Address |
|-------------|---------------|------------|------------|--------------|-------------|
| 1 | John Moore | Sales | Jane Smith | 416-123-4567 | 12 Main St |
| 2 | Jane Moore | Marketing | John Moore | 416-123-6789 | 45 Park Ave |
| 3 | Jack Smith | IT | John Moore | 416-123-8910 | 89 Elm St |

transitive dependancy

Dependencies

3NF

Employees

| employee_ID | employee_name | phone# | Address |
|-------------|---------------|--------------|-------------|
| 1 | John Moore | 416-123-4567 | 12 Main St |
| 2 | Jane Moore | 416-123-6789 | 45 Park Ave |
| 3 | Jack Smith | 416-123-8910 | 89 Elm St |

an employee
belongs to a
department

Employee+Departments

| employee_ID | department_ID |
|-------------|---------------|
| 1 | 100 |
| 2 | 200 |
| 3 | 300 |

composite key = order_ID + product_ID

a manager
supervises a
department

Departments

| department_ID | department | manager |
|---------------|------------|------------|
| 100 | Sales | Jane Moore |
| 200 | Marketing | John Moore |
| 300 | IT | John Moore |