

# Relational Mapping

## CUSTOMER

<u>Customer ID</u>	Name	Email
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## CUSTOMER\_PHONE\_NUMBER

<u>Customer ID</u>	<u>phone_type</u>	<u>Phone Number</u>
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## ORDER

<u>Order ID</u>	Order Amount	Order Mode	Customer_ID	Placed Order Day	Placed Order Date	Placed Order Time
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## ORDER\_CONTAINING\_PRODUCT

Product quantity	Product ID	Order ID
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## PRODUCT

<u>Product ID</u>	Product Name	Product_Category	Selling Price	Cost Price
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## EMPLOYEE\_HANDLES\_PRODUCT

Product ID	Employee ID
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## EMPLOYEE

<u>Employee ID</u>	Salary	Designation	First name	Middle name	Last Name	Employee_department_id
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## DEPARTMENT

<u>Department ID</u>	Department Name	Manager_Employee_id
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## PRODUCT\_CATEGORY

<u>Category</u>	Aisle
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## Candidate Keys

### **1. CUSTOMER**

- Customer\_ID
- Email

### **2. ORDER**

- Order\_ID

### **3. PRODUCT**

- Product\_ID

### **4. EMPLOYEE**

- Employee\_ID
- First\_Name, Middle\_Name, Last\_Name (Composite Key)

### **5. DEPARTMENT**

- Department\_ID
- Department\_Name

### **6. PRODUCT\_CATEGORY**

- Category

### **7. CUSTOMER\_PHONE\_NUMBER**

- Customer\_ID, Phone\_Type, Phone\_Number

### **8. ORDER\_CONTAINING\_PRODUCT**

- Product\_ID
- Order\_ID

## **9. EMPLOYEE\_HANDLES\_PRODUCT**

- Product\_ID
- Employee\_ID

## **Functional Dependencies (After BCNF)**

### **1. CUSTOMER**

- Customer\_ID -> Name, Email
- Email -> Customer\_ID, Name

### **2. ORDER**

- Order\_ID -> Order\_Amount, Order\_Mode, Customer\_ID, Placed\_Order\_Day, Placed\_Order\_Date, Placed\_Order\_Time

### **3. PRODUCT**

- Product\_ID -> Product\_Name, Product\_Category, Selling\_Price, Cost\_Price
- Product\_Name -> Selling\_Price, Cost\_Price

### **4. EMPLOYEE**

- Employee\_ID -> Salary, Designation, First\_Name, Middle\_Name, Last\_Name, Employee\_Department\_ID
- {First\_Name, Middle\_Name, Last\_Name} -> Employee\_ID

### **5. DEPARTMENT**

- Department\_ID -> Department\_Name, Manager\_Employee\_ID
- Department\_Name -> Department\_ID, Manager\_Employee\_ID
- Manager\_Employee\_ID -> Department\_ID, Department\_Name

### **6. PRODUCT\_CATEGORY**

- Category -> Aisle

## Team Details

Team Number: **13**

Team Members:

- Vinay Kumar Anant
- Prasanna Sundararajan Muthukumaran
- Hariharan Prakash
- Gayathri Ban Manjunath