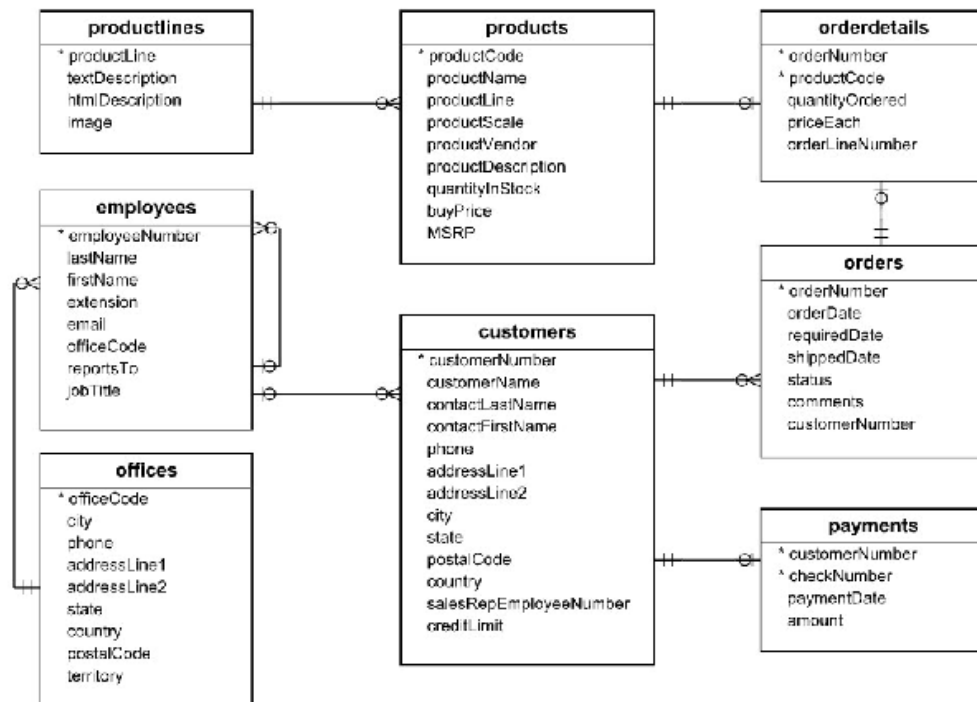**Nama** : **Sinar Nadhif Iiyasa**
Nim : **L200164017**
Class : **X (Informatic's)**

Relationship ER-Diagram mysql sample database :

MySQL Sample Database Diagram

productlines		products		orderdetails
* productLine		* productCode		* orderNumber
textDescription		productName		* productCode
htmlDescription		productLine		quantityOrdered
image		productScale		priceEach
		productVendor		orderLineNumber
		productDescription		
		quantityInStock		
		buyPrice		
		MSRP		

employees
* employeeNumber
lastName
firstName
extension
email
officeCode
reportsTo
jobTitle

customers
* customerNumber
customerName
contactLastName
contactFirstName
phone
addressLine1
addressLine2
city
state
postalCode
country
salesRepEmployeeNumber
creditLimit

orders
* orderNumber
orderDate
requiredDate
shippedDate
status
comments
customerNumber

offices
* officeCode
city
phone
addressLine1
addressLine2
state
country
postalCode
territory

payments
* customerNumber
* checkNumber
paymentDate
amount

Source : http://www.mysqltutorial.org/mysql-sample-database.aspx

1. Productlines and Products (1 to many) :

- Minimum number of products that productlines could have : zero
- Maximum number of products that productlines could have : many
- A product could only have one and only one productlines.

2. Productlines and Orders (many to many), which creates a new table : Orderdetails.

2.1. Products and orderdetails (1 to 1) :

- An order details could have a zero or one product.
- A products could only have one and only have 1 orderdetails.

2.2. Orderdetails and order (1 to 1) :

- An order can only have one and only one orderdetails.
- An orderdetails could only have zero or 1 orderdetails.

3. Customer and order (1 to many) :

- The amount orders that can be ordered by customer is zero or many
- A specific order can only have one and only one customer.

4. Employees and customers (1 to many) :

- An employees may serve zero or 1 customer only
- A customer may be served by many employees or without employee.

5. Customer and payments (1 to many) :

- A customer may pay or not pay the payments.
- A specific payment can be only paid by only and only one customers.

6. Office and employees (1 to many) :

- An office can be occupied by zero or many employees.
- An employees can only have one and only one offices.

7. Employees to employees (1 to many) :

- An employee as a manager could lead many employees or none.
- An employee could may have one leader or none