1. Customers:
   1. Attributes:
      1. customer\_id (INT): Primary key identifying each customer uniquely.
      2. customer\_name (VARCHAR(100)): Name of the customer.
      3. contact\_email (VARCHAR(100)): Email contact of the customer.
      4. contact\_person (VARCHAR(200)): Name of the contact person for the customer.
   2. Description: Contains information about customers who place orders. This table serves as a repository for customer details such as their names, contact email addresses, and the designated contact person within the customer organization.
2. Warehouses:
   1. Attributes:
      1. warehouse\_id (INT): Primary key identifying each warehouse uniquely.
      2. warehouse\_location (VARCHAR(200)): Location of the warehouse.
   2. Description: Stores details about warehouse locations. This table provides information on the various warehouses owned or utilized by the company, including their physical locations.
3. Products:
   1. Attributes:
      1. product\_id (INT): Primary key identifying each product uniquely.
      2. product\_name (VARCHAR(100)): Name of the product.
      3. category (VARCHAR(100)): Category to which the product belongs.
      4. material (VARCHAR(100)): Material used in the production of the product.
   2. Description: Holds data related to the products available for sale or manufacturing. This table provides comprehensive information about the products offered by the company, including their names, categories, and materials used.
4. Suppliers:
   1. Attributes:
      1. supplier\_id (INT): Primary key identifying each supplier uniquely.
      2. supplier\_name (VARCHAR(100)): Name of the supplier.
      3. contact\_person (VARCHAR(100)): Name of the contact person for the supplier.
      4. contact\_email (VARCHAR(20)): Email contact of the supplier.
   2. Description: Stores information about suppliers providing materials or products. This table maintains details about the suppliers engaged with the company, including their names, contact persons, and email addresses.
5. Sales Orders:
   1. Attributes:
      1. sales\_order\_id (INT): Primary key identifying each sales order uniquely.
      2. customer\_id (INT): Foreign key referencing the customer placing the order.
      3. product\_id (INT): Foreign key referencing the product being ordered.
      4. quantity (INT): Quantity of the product ordered.
      5. order\_date (DATE): Date when the order was placed.
   2. Description: Records sales orders placed by customers. This table tracks the sales transactions initiated by customers, capturing details such as the customer ID, product ID, quantity ordered, and order date.
6. Supply Orders:
   1. Attributes:
      1. supply\_order\_id (INT): Primary key identifying each supply order uniquely.
      2. supplier\_id (INT): Foreign key referencing the supplier fulfilling the order.
      3. product\_id (INT): Foreign key referencing the product being ordered.
      4. order\_date (DATE): Date when the order was placed.
      5. quantity (INT): Quantity of the product ordered.
   2. Description: Tracks supply orders placed by the company to suppliers. This table manages the procurement process by recording orders placed with suppliers, including details such as supplier ID, product ID, order date, and quantity.
7. Stock:
   1. Attributes:
      1. stock\_id (INT): Primary key identifying each stock record uniquely.
      2. product\_id (INT): Foreign key referencing the product in stock.
      3. warehouse\_id (INT): Foreign key referencing the warehouse where the product is stored.
      4. quantity (INT): Quantity of the product available in the warehouse.
   2. Description: Manages the stock levels of products in different warehouses. This table maintains a record of product stocks across various warehouses, indicating the quantity of each product available at a specific location.
8. Manufacturing Plants:
   1. Attributes:
      1. manufacture\_plant\_id (INT): Primary key identifying each manufacturing plant uniquely.
      2. manufacture\_name (VARCHAR(100)): Name of the manufacturing plant.
      3. manufacture\_location (VARCHAR(200)): Location of the manufacturing plant.
   2. Description: Contains data about manufacturing plants. This table provides information regarding the manufacturing facilities owned or operated by the company, including their names and locations.
9. Production Lines:
   1. Attributes:
      1. production\_line\_id (INT): Primary key identifying each production line uniquely.
      2. manufacture\_plant\_id (INT): Foreign key referencing the manufacturing plant to which the production line belongs.
      3. production\_line\_name (VARCHAR(100)): Name of the production line.
   2. Description: Stores information about production lines in manufacturing plants. This table manages details regarding the production lines within the manufacturing facilities, including their names and associated plants.
10. Employees:
    1. Attributes:
       1. employee\_id (INT): Primary key identifying each employee uniquely.
       2. name (VARCHAR(100)): Name of the employee.
       3. position (VARCHAR(50)): Position or job title of the employee.
       4. manufacture\_plant\_id (INT): Foreign key referencing the manufacturing plant where the employee works.
    2. Description: Holds details about employees working in the manufacturing plants. This table maintains employee records, including their names, positions, and the manufacturing plants to which they are assigned.
11. Payroll:
    1. Attributes:
       1. payroll\_id (INT): Primary key identifying each payroll record uniquely.
       2. employee\_id (INT): Foreign key referencing the employee for whom the payroll information is recorded.
       3. salary (DECIMAL(10, 2)): Salary amount for the employee.
       4. bonus (DECIMAL(10, 2)): Bonus amount for the employee.
       5. pay\_date (DATE): Date of the payroll entry.
    2. Description: Manages payroll information for employees. This table stores data related to employee salaries, bonuses, and payment dates, facilitating the administration of payroll processes.
12. Family:
    1. Attributes:
       1. family\_id (INT): Primary key identifying each family member uniquely.
       2. employee\_id (INT): Foreign key referencing the employee to whom the family member is related.
       3. family\_phone (VARCHAR(100)): Contact phone number of the family member.
       4. family\_position (VARCHAR(200)): Relationship or position of the family member in relation to the employee.
    2. Description: Stores data about family members of employees. This table maintains information regarding the family members associated with employees, including their contact details and relationship to the employee.
13. Production Orders:
    1. Attributes:
       1. production\_order\_id (INT): Primary key identifying each production order uniquely.
       2. production\_line\_id (INT): Foreign key referencing the production line responsible for the order.
       3. product\_id (INT): Foreign key referencing the product to be manufactured.
       4. order\_date (DATE): Date when the production order was placed.
    2. Description: Tracks production orders placed for manufacturing products. This table records the production orders initiated within the manufacturing facilities, capturing details such as the production line ID, product ID, and order date.
14. Views:

Payroll View:

Description: A view displaying each employee's salary information. This view provides a consolidated view of payroll data for all employees, including their salaries, bonuses, and payment dates.

1. Indexes:

Index on Employee ID in Payroll Table:

Description: Improves query performance on the employee\_id field in the payroll table. This index enhances the retrieval speed of payroll data based on employee IDs.

1. Triggers:

Update Total Salary Trigger:

Description: Automatically updates the total salary of an employee when new payroll entries are inserted. This trigger ensures that the total salary for each employee is accurately calculated and maintained.

1. Procedures:

Get Payroll Info Procedure:

Description: Retrieves payroll data from the payroll table and outputs it to a result set. This procedure facilitates the retrieval of payroll information for reporting or analysis purposes.

1. Calculate Total Salary Procedure:

Description: Calculates the total salary of all employees. This procedure aggregates the salary and bonus amounts for each employee to determine the total payroll expenditure.

1. Events:

Remind Check Orders Event:

Description: An event scheduled to remind checking production orders on a weekly basis. This event triggers a notification to remind users to review and manage production orders regularly.