**Title of Project:**

**EcoBricks: The Sustainable Furniture Revolution**

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**GitHub URL: <https://github.com/akshithadanamaina/Database-systems-3.git>**

**SQL environment: Windows**

**UML ER Diagram (Physical Model):**

A white screen with black text

Description automatically generated

**Crow Foot ER Diagram (Logical Model):**

A screenshot of a computer

Description automatically generated

**Entities Relationships Description:**

For the EcoBricks furniture company, considering the entities, here are the descriptions for the relationships in the ERD:

1. **Customer-Order Relationship:**

Each Order is linked to 1 and only 1 Customer, but a Customer can have 0 or many Orders. This reflects that while every order must be associated with a specific customer, a customer may not necessarily have placed any orders or could have placed multiple orders.

1. **Product-ProductionBatch Relationship:**

Each ProductionBatch is associated with 1 and only 1 Product, while a Product can be linked to 0 or many ProductionBatches. This indicates that each batch of production is for a specific product, but a product may not have any production batches yet or could have several batches.

1. **Product-Order Relationship (through an associative entity like OrderDetails):**

Each Order can contain 1 or many Products, and each Product can be part of 1 or many Orders. This many-to-many relationship is typically managed through an associative entity like OrderDetails, which records each instance of a product being part of an order.

1. **Supplier-MaterialSupply Relationship:**

Each MaterialSupply record is associated with 1 and only 1 Supplier, but a Supplier can be linked to 0 or many MaterialSupply records. This reflects that each material supply instance must come from a specific supplier, but a supplier might not have supplied any materials yet or could have supplied multiple times.

1. **Product-MaterialSupply Relationship:**

Each MaterialSupply record is associated with 1 and only 1 Product, but a Product can be linked to 0 or many MaterialSupply records. This indicates that each material supply instance is for a specific product, but a product may not have any material supplied for it yet or could have materials supplied from various instances.