

# Dunder Mifflin Sales Console

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CSI-3450: Database Design and Implementation  
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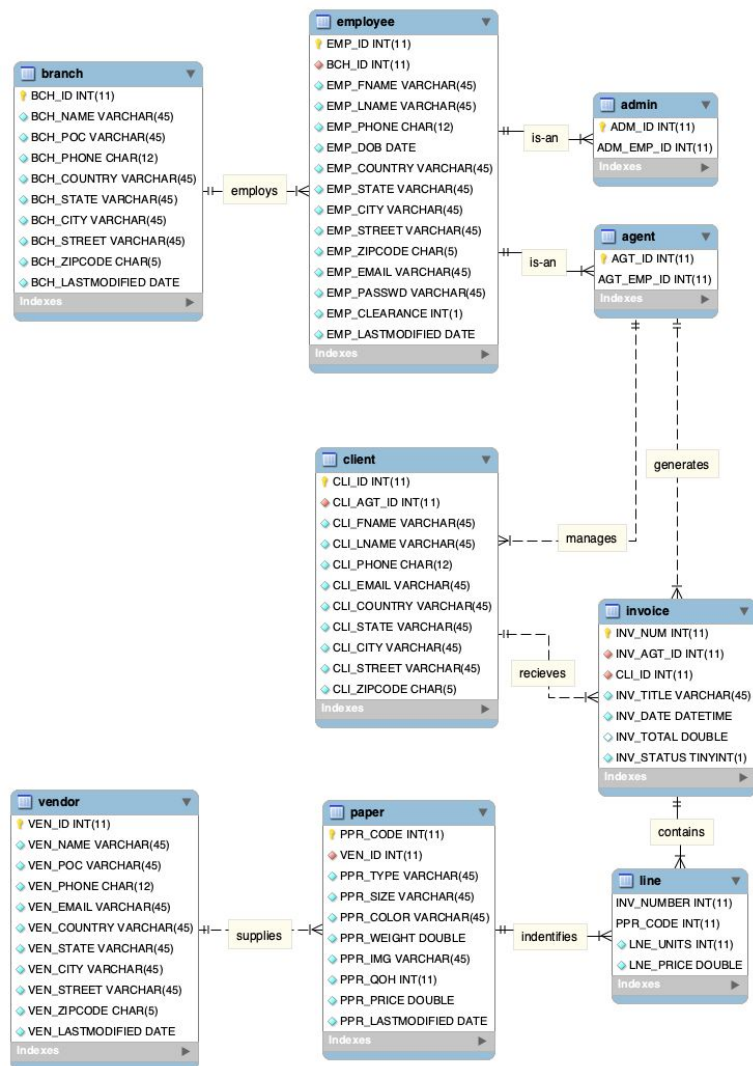
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# Problem Statement & Application Scenario

- The application aims to provide a sales management platform that will aid the end-users in the recurring sale of paper products, tracking of product inventory, and management of their customers and their respective transactions.
- The application scenario is a basic retail sales management console where the employee will enter Orders for our customers. Customers do not place their own orders.

# Functional Requirements

- Various transactions are required to enable our employees to track orders and invoices. Most notably, the adding of orders which will initiate the creation of an invoice that can contain multiple line items.
- This multi-table transaction requires the addition of new instances in our Invoice and Line tables while recording Product IDs and prices from the Products table.
- The Line entity is the composite entity which enables the invoice to contain multiple paper products. This Line can then be used to show the total price of the paper products when buying large quantities.
- Employees, branches, clients, are all tracked managed by our system as well.



- Our ERD contains 9 entities
- The **Branch**, **Employee**, **Client**, and **Vendor** entities share the same general structure
- The **Employee** entity contains the foreign key “BCH\_ID” to specify which branch each employee belongs to, and it also contains two subtypes **Admin** and **Agent**
- These differentiate between employees who are salesmen at the company, and employees in the IT department that will have administrator privileges.
- To allow one **Invoice** to contain many different kinds of **Paper**, we’ve added the composite entity **Line**
- The composite key of **Line** consists of “PPR\_CODE” and “INV\_NUMBER” meaning that for every unique PPR\_CODE in an **Invoice** a new line entity will be created

# Toolbox

- Front-End: HTML, CSS, jQuery/Javascript
- Back-End: PHP, MySQL/MariaDB Server, Apache
- AMP Stack: Stack: XAMPP (WAMP) and Bitnami (MAMP)
- IDE(s): PHPStorm & NetBeans
- Operating Systems: Windows/MacOS
- Communications: Discord

# Demo