DAMG6210\_ProjectGroup20\_P3. Final ERD

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E-R Diagram(Revised)：

图示, 示意图

描述已自动生成

Objectives:

1.To provide a fast retrieval, convenient search, high reliability, large storage capacity and good confidentiality

2.Easily add, delete, modify, or delete data within the WMS.

3.Offer efficient, safe, and trustworthy information displaying and monitoring

4.Prevent redundant duplication or loss of paper-based documents

Key Database Design Decisions:

1. **ADMINISTRATOR** (AdminID, AdminName, AdminNumber, Address, City, ZipCode)

2. **SUPPLIER** (SupID, SupName, SupNumber, Address, City, ZipCode)

3. **CUSTOMER** (CustID, CustName, CustNumber, Address, City, ZipCode)

4. **WAREHOUSE** (WhseID, WhseName, Address, City, ZipCode, WhseInventory)

5. **PRODUCT** (ProID, ProName, ProType, Description)

6. **CONTACTS TO** (*AdminID*, *SupID*, ContactTime)

7. **MONITORS** (*AdminID*, *ProID*, Monitime)

8. **COMMUNICATES TO** (*AdminID*, *CustID*, ComTime)

9. **MANAGES** (*AdminID*, *WhseID*, ManageTime)

10. **PURCHASES** (*CustID*, *ProID*, PurQuantity)

11. **SUPPLIES** (*SupID*, *ProID*, SupQuantity)

12. **STORES** (*WhseID*, *ProID*, TotalStorage)

1. **ADMINISTRATOR:**

Contacts to suppliers, monitors the products, communicates with customers, and manages the warehouse.

Contains suppliers’ information: ID, Name, Number, Address (Address, City, ZipCode).

1. **SUPPLIER:**

Supplies products.

Contains suppliers’ information: ID, Name, Number, Address (Address, City, ZipCode).

1. **CUSTOMER:**

Purchases products.

Contains customers’ information: ID, Name, Number, Address (Address, City, ZipCode).

1. **WAREHOUSE:**

Stores products.

Contains warehouses’ information: ID, Name, Address (Address, City, ZipCode)., Inventory.

1. **PRODUCT:**

Contains products’ information: ID, Name, Type, Description.

1. **CONTACTS TO:**

An associative entity: keep the contact date as record.

1. **MONITORS:**

An associative entity: keep the monitor date as record.

1. **COMMUNICATES TO:**

An associative entity: keep the communicate date as record.

1. **MANAGES:**

An associative entity: keep the manage date as record.

1. **PURCHASES:**

An associative entity: keep the quantity of products that a customer buys.

1. **SUPPLIES:**

An associative entity: keep the quantity of products that a supplier supplies.

1. **STORES:**

An associative entity: keep the total storage of products that a warehouse has.

Brief description identifying the changes:

1. Removed the composite attributes “AdminAddr” in ADMINISTRATOR entity, “SupAddr” in SUPPLIER entity, “WhseAddr” in WAREHOUSE entity, “CustAddr” in CUSTOMER entity. Instead, using “Address”, “City”, and “ZipCode” to replace them.
2. Modified the data model by using rectangles for entities with attributes inside the boxes, and lines as relationships.
3. “WhseInventory” attribute in WAREHOUSE entity, means the volume of the warehouse, while the’TotalStorage’ means the storage of one certain type of product.