Carmen Municipal College

A.Y. 2014-2025



**School Supplies Database System**

CC105 – Information Management

Midterm Project

**RHEA JAY CELINE COSARES**

**ISRAEL JR. A. SARONG**

**1. Introduction**

This document outlines the design of a School Supplies Database System, intended to efficiently manage the inventory, purchase, and distribution of school supplies within an educational institution. The system tracks various types of supplies, suppliers, purchase orders, stock levels, and distribution records. This structured approach aims to optimize supply chain management, ensure timely availability of resources, and enhance the overall efficiency of school operations.

**2. Entity-Relationship Diagram (ERD)**

plaintext

| | **SCHOOL\_SUPPLY** |

|---|---|

| PK | supply\_id |

| | name |

| | description |

| | category |

| | unit\_price |

| | **SUPPLIER** |

|---|---|

| PK | supplier\_id |

| | name |

| | contact\_info |

| | address |

| | **PURCHASE\_ORDER** |

|---|---|

| PK | order\_id |

| FK | supplier\_id |

| | order\_date |

| | total\_amount |

| | **ORDER\_ITEM** |

|---|---|

| PK | item\_id |

| FK | order\_id |

| FK | supply\_id |

| | quantity |

| | unit\_price |

| | **STOCK** |

|---|---|

| PK | stock\_id |

| FK | supply\_id |

| | quantity\_on\_hand |

| | **DISTRIBUTION** |

|---|---|

| PK | distribution\_id |

| FK | stock\_id |

| | distribution\_date |

| | quantity\_distributed |

| | recipient |

**3. Database Tables Description**

- **SCHOOL\_SUPPLY**: Stores information about different types of school supplies.

-  supply\_id  (Primary Key): Unique identifier for each school supply.

-  name : Name of the supply (e.g., pencils, notebooks, erasers).

-  description : Detailed description of the supply.

-  category : Category of the supply (e.g., stationery, art supplies, technology).

-  unit\_price : Price of one unit of the supply.

- **SUPPLIER**: Stores information about suppliers of school supplies.

-  supplier\_id  (Primary Key): Unique identifier for each supplier.

-  name : Name of the supplier.

-  contact\_info : Contact information for the supplier.

-  address : Address of the supplier.

- **PURCHASE\_ORDER**: Records purchase orders placed with suppliers.

-  order\_id  (Primary Key): Unique identifier for each purchase order.

-  supplier\_id  (Foreign Key): Links to the SUPPLIER table.

-  order\_date : Date when the order was placed.

-  total\_amount : Total amount of the purchase order.

- **ORDER\_ITEM**: Tracks individual items included in each purchase order.

-  item\_id  (Primary Key): Unique identifier for each item in an order.

-  order\_id  (Foreign Key): Links to the PURCHASE\_ORDER table.

-  supply\_id  (Foreign Key): Links to the SCHOOL\_SUPPLY table.

-  quantity : Quantity of the supply ordered.

-  unit\_price : Unit price of the supply.

- **STOCK**: Maintains a record of current stock levels for each school supply.

-  stock\_id  (Primary Key): Unique identifier for each stock entry.

-  supply\_id  (Foreign Key): Links to the SCHOOL\_SUPPLY table.

-  quantity\_on\_hand : Current quantity of the supply in stock.

- **DISTRIBUTION**: Logs the distribution of supplies to different recipients.

-  distribution\_id  (Primary Key): Unique identifier for each distribution record.

-  stock\_id  (Foreign Key): Links to the STOCK table.

-  distribution\_date : Date of the distribution.

-  quantity\_distributed : Quantity of the supply distributed.

-  recipient : Name or department that received the supplies.

**4. SQL Statements**

Create Tables

sql

CREATE TABLE SCHOOL\_SUPPLY (

supply\_id INT PRIMARY KEY,

name VARCHAR(100),

description VARCHAR(255),

category VARCHAR(50),

unit\_price DECIMAL(10,2)

);

CREATE TABLE SUPPLIER (

supplier\_id INT PRIMARY KEY,

name VARCHAR(100),

contact\_info VARCHAR(255),

address VARCHAR(255)

);

CREATE TABLE PURCHASE\_ORDER (

order\_id INT PRIMARY KEY,

supplier\_id INT,

order\_date DATE,

total\_amount DECIMAL(10,2),

FOREIGN KEY (supplier\_id) REFERENCES SUPPLIER(supplier\_id)

);

CREATE TABLE ORDER\_ITEM (

item\_id INT PRIMARY KEY,

order\_id INT,

supply\_id INT,

quantity INT,

unit\_price DECIMAL(10,2),

FOREIGN KEY (order\_id) REFERENCES PURCHASE\_ORDER(order\_id),

FOREIGN KEY (supply\_id) REFERENCES SCHOOL\_SUPPLY(supply\_id)

);

CREATE TABLE STOCK (

stock\_id INT PRIMARY KEY,

supply\_id INT,

quantity\_on\_hand INT,

FOREIGN KEY (supply\_id) REFERENCES SCHOOL\_SUPPLY(supply\_id)

);

CREATE TABLE DISTRIBUTION (

distribution\_id INT PRIMARY KEY,

stock\_id INT,

distribution\_date DATE,

quantity\_distributed INT,

recipient VARCHAR(100),

FOREIGN KEY (stock\_id) REFERENCES STOCK(stock\_id)

);

Insert Sample Data

sql

-- Insert sample data into the tables (replace with your own data)

INSERT INTO SCHOOL\_SUPPLY (supply\_id, name, description, category, unit\_price) VALUES

(1, 'Pencils', 'Wooden pencils with eraser', 'Stationery', 0.25),

(2, 'Notebooks', 'Ruled notebooks with 100 pages', 'Stationery', 2.50),

(3, 'Crayons', 'Box of 24 assorted crayons', 'Art Supplies', 5.00),

(4, 'Laptop', '15.6-inch laptop with 8GB RAM', 'Technology', 700.00);

INSERT INTO SUPPLIER (supplier\_id, name, contact\_info, address) VALUES

(1, 'Office Depot', '1-800-555-1212', '123 Main Street, Anytown, USA'),

(2, 'Art Supply Store', '1-800-555-1213', '456 Oak Avenue, Anytown, USA');

-- Insert sample data for other tables (PURCHASE\_ORDER, ORDER\_ITEM, STOCK, DISTRIBUTION)