**SQL SCRIPT:**

* **CREATE DATABASE zero\_hunger;**
* **USE zero\_hunger;**

**TABLE CREATION:**

**CREATE TABLE Donors (**

**donor\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**name VARCHAR(255) NOT NULL,**

**contact\_info VARCHAR(255),**

**organization VARCHAR(255)**

**);**

**Explanation;**

**donor\_id**: This is the name of the first column in the Donors table. It serves as a unique identifier for each donor.

**name**: This column stores the name of the donor.

**contact\_info**: This column stores the contact information for the donor, such as a phone number or email address.

**organization**: This column stores the name of the organization that the donor is affiliated with, if applicable.

**CREATE TABLE Food\_Items (**

**item\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**name VARCHAR(255) NOT NULL,**

**category VARCHAR(255),**

**expiry\_date DATE,**

**donor\_id INT,**

**FOREIGN KEY (donor\_id) REFERENCES Donors(donor\_id)**

**);**

**Explanation;**

**item\_id**: This is the name of the first column in the Food\_Items table. It serves as a unique identifier for each food item.

**name**: This column stores the name of the food item.

**category**: This column stores the category of the food item, such as "Rice," "Beans," or "Wheat.

**expiry\_date**: This column stores the expiration date of the food item.

**donor\_id**: This column stores the ID of the donor who provided the food item.

**Foreign key:**This line establishes a foreign key relationship between the donor\_id column in the Food\_Items table and the donor\_id column in the Donors table.

**REFERENCES Donors(donor\_id)**: This specifies the reference table (Donors) and the reference column (donor\_id). It enforces referential integrity, ensuring that every food item is associated with a valid donor, if provided.

**CREATE TABLE Distribution\_Centers (**

**center\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**name VARCHAR(255) NOT NULL,**

**address VARCHAR(255),**

**contact\_info VARCHAR(255),**

**item\_id INT,**

**FOREIGN KEY (item\_id) REFERENCES Food\_Items(item\_id)**

**);**

**Explanation;**

**center\_id**: This is the name of the first column in the Distribution\_Centers table. It serves as a unique identifier for each distribution center.

**name**: This column stores the name of the distribution center.

**address**: This column stores the address of the distribution center.

**contact\_info**: This column stores the contact information for the distribution center, such as a phone number or email address.

**item\_id**: This column stores the ID of the food item that the distribution center is currently distributing.

**CREATE TABLE Donations (**

**donation\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**donor\_id INT,**

**item\_id INT,**

**quantity INT NOT NULL,**

**date DATE NOT NULL,**

**FOREIGN KEY (donor\_id) REFERENCES Donors(donor\_id),**

**FOREIGN KEY (item\_id) REFERENCES Food\_Items(item\_id)**

**);**

**Explanation;**

**donation\_id**: This is the name of the first column in the Donations table. It serves as a unique identifier for each donation record.

**donor\_id**: This column stores the ID of the donor who made the donation.

**item\_id**: This column stores the ID of the food item that was donated.

**quantity**: This column stores the quantity of the food item that was donated.

**date**: This column stores the date when the donation was made.

**CREATE TABLE Recipients (**

**recipient\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**name VARCHAR(255) NOT NULL,**

**address VARCHAR(255),**

**contact\_info VARCHAR(255),**

**item\_id INT,**

**center\_id INT,**

**FOREIGN KEY (item\_id) REFERENCES Food\_Items(item\_id),**

**FOREIGN KEY (center\_id) REFERENCES Distribution\_Centers(item\_id)**

**);**

**Explanation;**

**recipient\_id**: This is the name of the first column in the Recipients table. It serves as a unique identifier for each recipient.

**name**: This column stores the name of the recipient.

**address**: This column stores the address of the recipient.

**contact\_info**: This column stores the contact information for the recipient, such as a phone number or email address.

**item\_id**: This column stores the ID of the food item that the recipient has received.

**center\_id**: This column stores the ID of the distribution center that provided the food item to the recipient.

**CREATE TABLE Distribution (**

**distribution\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**center\_id INT,**

**recipient\_id INT,**

**item\_id INT,**

**quantity INT NOT NULL,**

**date DATE NOT NULL,**

**FOREIGN KEY (center\_id) REFERENCES Distribution\_Centers(center\_id),**

**FOREIGN KEY (recipient\_id) REFERENCES Recipients(recipient\_id),**

**FOREIGN KEY (item\_id) REFERENCES Food\_Items(item\_id)**

**Explanation;**

**distribution\_id**: This is the name of the first column in the Distribution table. It serves as a unique identifier for each distribution record.

**center\_id**: This column stores the ID of the distribution center that is distributing the food item.

**recipient\_id**: This column stores the ID of the recipient who is receiving the food item.

**item\_id**: This column stores the ID of the food item being distributed.

**quantity**: This column stores the quantity of the food item being distributed.

**date**: This column stores the date when the distribution occurred.

**NB:** The foreign key and reference key all have the same meaning with the adjustment of necessary name.