**select \* from hw5\_original;**

**DROP TABLE IF EXISTS artists;**

**CREATE TABLE artists(**

**artistId INTEGER NOT NULL PRIMARY KEY AUTOINCREMENT,**

**artistName VARCHAR(20) unique not NULL**

**);**

**DROP TABLE IF EXISTS albums;**

**CREATE TABLE albums (**

**albumId INTEGER NOT NULL PRIMARY KEY AUTOINCREMENT,**

**albumTitle VARCHAR(255),**

**artistId INT,**

**FOREIGN KEY (artistId) REFERENCES artists(artistId)**

**);**

**DROP TABLE IF EXISTS media\_types;**

**CREATE TABLE media\_types (**

**mediaTypeId INTEGER NOT NULL PRIMARY KEY AUTOINCREMENT,**

**mediaName VARCHAR(20) not NULL**

**);**

**DROP TABLE IF EXISTS genres;**

**CREATE TABLE genres (**

**genreId INTEGER NOT NULL PRIMARY KEY AUTOINCREMENT,**

**genreName VARCHAR(20) not NULL**

**);**

**DROP TABLE IF EXISTS Customers;**

**CREATE TABLE Customers (**

**customer\_id INTEGER NOT NULL PRIMARY KEY AUTOINCREMENT,**

**firstName VARCHAR(255) not NULL,**

**lastName VARCHAR(255) not NULL,**

**address VARCHAR(255),**

**city VARCHAR(255),**

**state VARCHAR(255),**

**country VARCHAR(255),**

**postalCode VARCHAR(255),**

**phoneNumber VARCHAR(255),**

**faxNumber VARCHAR(255),**

**email VARCHAR(255),**

**UNIQUE(lastName) on CONFLICT ABORT**

**);**

**DROP TABLE IF EXISTS Invoices;**

**CREATE TABLE Invoices (**

**InvoiceId INTEGER NOT NULL PRIMARY KEY AUTOINCREMENT,**

**Date TEXT not NULL,**

**billingAddress VARCHAR(255),**

**billingCity VARCHAR(255),**

**billingState VARCHAR(255),**

**billingCountry VARCHAR(255),**

**billingPostalCode VARCHAR(255),**

**customer\_id INT,**

**FOREIGN KEY (customer\_id) REFERENCES Customers(customer\_id),**

**UNIQUE(InvoiceId) on conflict abort**

**);**

**DROP TABLE IF EXISTS tracks;**

**CREATE TABLE tracks (**

**trackId INTEGER NOT NULL PRIMARY KEY AUTOINCREMENT,**

**trackName VARCHAR(255) not NULL,**

**composer VARCHAR(255),**

**trackSizeBytes INT,**

**trackLength INT not NULL,**

**trackprice DECIMAL(10,2) not NULL,**

**genreId INT,**

**mediaTypeId INT,**

**albumId INT,**

**FOREIGN KEY (mediaTypeId) REFERENCES media\_types(mediaTypeId),**

**FOREIGN KEY (genreId) REFERENCES genres(genreId),**

**FOREIGN KEY (albumId) REFERENCES albums(albumId)**

**);**

**DROP TABLE IF EXISTS Invoice\_items;**

**CREATE TABLE Invoice\_items (**

**InvoiceItemID INTEGER NOT NULL PRIMARY KEY AUTOINCREMENT,**

**trackId INT,**

**quantity INT not NULL,**

**unitPrice DECIMAL(10,2) not NULL,**

**InvoiceId INT,**

**FOREIGN KEY (InvoiceId) REFERENCES Invoices(InvoiceId),**

**FOREIGN KEY (trackId) REFERENCES tracks(trackId)**

**);**

**INSERT INTO media\_types(mediaName)**

**SELECT DISTINCT MediaType**

**FROM hw5\_original;**

**select \* from media\_types;**

**INSERT INTO genres(genreName)**

**SELECT DISTINCT Genre**

**FROM hw5\_original;**

**select \* from genres;**

**INSERT INTO artists(artistName)**

**SELECT DISTINCT artistName**

**FROM hw5\_original;**

**select \* from artists;**

**INSERT INTO albums(albumTitle, artistId)**

**SELECT DISTINCT albumTitle, artistId**

**FROM hw5\_original h join artists a on h.artistName = a.artistName;**

**select \* from albums;**

**INSERT INTO Customers(firstName, lastName, address, city, state, country, postalCode, phoneNumber, faxNumber, email)**

**SELECT DISTINCT**

**CustomerFirstName,**

**CustomerLastName,**

**CustomerAddress,**

**CustomerCity,**

**CustomerState,**

**CustomerCountry,**

**CustomerPostalCode,**

**CustomerPhone,**

**CustomerFax,**

**CustomerEmail**

**FROM hw5\_original**

**where CustomerFirstName is not null;**

**select \* from Customers;**

**INSERT INTO Invoices(InvoiceId, Date, billingAddress, billingCity, billingState, billingCountry, billingPostalCode, customer\_id)**

**SELECT DISTINCT**

**InvoiceId,**

**InvoiceDate,**

**InvoiceBillingAddress,**

**InvoiceBillingCity,**

**InvoiceBillingState,**

**InvoiceBillingCountry,**

**InvoiceBillingPostalCode,**

**customer\_id**

**FROM hw5\_original h**

**join Customers c on h.CustomerFirstName = c.firstName AND h.CustomerLastName = c.lastName**

**;**

**select \* from Invoices;**

**INSERT INTO tracks(trackName, composer, trackSizeBytes, trackLength, trackprice, genreId, mediaTypeId, albumId)**

**select DISTINCT**

**TrackName,**

**Composer,**

**trackSizeBytes,**

**trackLength,**

**TrackPrice,**

**genreId,**

**mediaTypeId,**

**albumId**

**from hw5\_original h**

**JOIN genres AS g ON h.Genre = g.genreName**

**JOIN media\_types AS m ON h.MediaType = m.mediaName**

**JOIN albums AS a ON h.AlbumTitle = a.albumTitle;**

**select \* from tracks;**

**INSERT INTO Invoice\_items(InvoiceId, trackId, quantity, unitPrice)**

**select DISTINCT**

**i.InvoiceID,**

**t.trackId,**

**h.InvoiceItemQuantity,**

**h.InvoiceItemUnitPrice**

**FROM**

**hw5\_original AS h**

**JOIN**

**tracks AS t ON t.trackName = h.trackName AND t.trackSizeBytes = h.TrackSizeBytes**

**JOIN**

**Invoices AS i ON h.InvoiceId = i.InvoiceId**

**WHERE**

**h.InvoiceID IS NOT NULL;**

**select \* from Invoice\_items;**