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## Section 1: Managing Databases

DDL commands - CREATE, DROP

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### /\*\*1.1 Creating & Selecting a MySQL Database\*\*/

-- List the databases that are available on your server

SHOW DATABASES; -- end your code with semi-colon

-- Ctrl+Enter to execute online of code; Ctrl+Shift+Enter to execute mutiple selected lines of code.

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Multi-line comments

in SQL

\*/

-- Single line comment

-- Create a new database - demo

CREATE DATABASE demo;

-- To select a database to work with, you need to use the USE statement

USE demo;

-- To verify it, you can use the select database() statement

```
SELECT DATABASE();
```

-- using IF EXISTS and IF NOT EXISTS

```
CREATE DATABASE testdb;
```

```
CREATE DATABASE testdb; -- Error
```

```
CREATE DATABASE IF NOT EXISTS testdb; -- Warning
```

**/\*\*1.2 DROP Database\*\*/**

```
DROP DATABASE IF EXISTS testdb;
```

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## Section 2: MySQL Data Types

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A database table contains multiple columns with specific data types such as numeric or string or date.

MySQL provides more data types other than just numeric and string. Each data type in MySQL can be determined by the following characteristics:

> The kind of values it represents.

> The space that takes up and whether the values are a fixed-length or variable length.

They are grouped into five main categories:

- Numeric data types
- Date and time data types
- String data types
- Spatial data types
- JSON data types

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## Section 3: MySQL constraints

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> NOT NULL– a NOT NULL column will make sure no NULL values are inserted in the column.

> PRIMARY KEY -

A primary key is a column or a set of columns that uniquely identifies each row in the table. The primary key follows these rules:

- A primary key must contain unique values. If the primary key consists of multiple columns,

the combination of values in these columns must be unique.

- A primary key column cannot have NULL values. Any attempt to insert or update NULL to primary key columns will result in an error.

Note that MySQL implicitly adds a NOT NULL constraint to primary key columns.

- A table can have one and only one primary key.

> FOREIGN KEY - A foreign key is a column or group of columns in a table that links to a column or group of columns in another table.

The foreign key places constraints on data in the related tables, which allows MySQL to maintain "referential integrity".

> Disable Foreign Key Checks

Sometimes, it is very useful to disable foreign key checks. For example, you can load data to the parent and child tables in any order

with the foreign key constraint check disabled. If you don't disable foreign key checks, you have to load data into the parent

tables first and then the child tables in sequence, which can be tedious.

Another scenario that you want to disable the foreign key check is when you want to drop a table.

Unless you disable the foreign key checks, you cannot drop a table referenced by a foreign key constraint.

```
SET foreign_key_checks = 0;
```

```
SET foreign_key_checks = 1;
```

> UNIQUE Constraint - A UNIQUE constraint is an integrity constraint that ensures values in a column or group of columns to be unique.

A UNIQUE constraint can be either a column constraint or a table constraint.

> CHECK Constraint - CHECK constraint to ensure that values stored in a column or group of columns satisfy a Boolean expression.

> DEFAULT constraint - allows you to specify a default value for a column.

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```
/*=====
```

## Section 4: Working with tables

DDL commands - CREATE, ALTER, DROP, RENAME, TRUNCATE

DML commands - SELECT, INSERT, UPDATE, DELETE

```
=====*/
```

```
/**4.1 CREATE TABLE**/
```

```
/*
```

```
-- syntax
```

```
CREATE TABLE [IF NOT EXISTS] table_name(
```

```
    column_1_definition,
```

```
    column_2_definition,
```

```
    ...,
```

```
    table_constraints
```

```
) [ENGINE=storage_engine];
```

InnoDB became the default storage engine since MySQL version 5.5. The InnoDB storage engine brings many benefits of a

relational database management system such as ACID transaction, referential integrity, and crash recovery.

In the previous versions, MySQL used MyISAM as the default storage engine.

```
-- column_1_definition
```

column\_name data\_type(length) [NOT NULL] [DEFAULT value] [AUTO\_INCREMENT]  
[column\_constraint]

\*/

```
CREATE TABLE trasnsactions(  
transaction_id INT,  
transaction_date DATETIME,  
Customer_id INT,  
Product_id INT,  
quantity INT,  
tax DECIMAL(5,2),  
price DECIMAL(5,2),  
isCustomerMembership BIT,  
comments varchar(500)  
);
```

-- Display table info

DESC trasnsactions;

DESCRIBE trasnsactions;

-- Generate the CREATE table script

SHOW CREATE TABLE trasnsactions;

-- DDL command: DROP a Table

DROP TABLE IF EXISTS trasnsactions;

-- DDLcommand: CREATE a Table

```
CREATE TABLE IF NOT EXISTS transactions(  
transaction_id INT,  
transaction_date DATETIME,  
Customer_id INT,
```

```
Product_id INT,  
quantity INT,  
tax DECIMAL(5,2),  
price DECIMAL(5,2),  
isCustomerMembership BIT,  
comments varchar(500)  
);
```

```
-- DML command: SELECT
```

```
SELECT * FROM transactions; -- Empty table
```

```
-- DML command: INSERT
```

```
INSERT INTO transactions
```

```
(transaction_id,transaction_date,Customer_id,Product_id,quantity,tax,price,isCustomerMembership  
,comments)
```

```
VALUES
```

```
(1,'2022-01-27 11:53:45',101,20254,25,0.05,120,1,'Republic day Sale');
```

```
-- Check the INSERTED data
```

```
SELECT * FROM transactions;
```

```
-- Insert the same data again
```

```
INSERT INTO transactions
```

```
(transaction_id,transaction_date,Customer_id,Product_id,quantity,tax,price,isCustomerMembership  
,comments)
```

```
VALUES
```

```
(1,'2022-01-27 11:53:45',101,20254,25,0.05,120,1,'Republic day Sale');
```

```
-- INSERT NULLS
```

```
INSERT INTO transactions
```

```
(transaction_id,transaction_date,Customer_id,Product_id,quantity,tax,price,isCustomerMembership  
,comments)
```

VALUES

(NULL,NULL,NULL,NULL,NULL,NULL,NULL,NULL);

INSERT INTO transactions

(transaction\_id,transaction\_date,Customer\_id,Product\_id,quantity,tax,price,isCustomerMembership  
,comments)

VALUES

(NULL,'2022-01-27 11:53:45',NULL,20254,25,0.05,120,1,'Republic day Sale');

-- Check the INSERTED data

SELECT \* FROM transactions;

-- Now DROP the table and recreate with Constraints and Keys

DROP TABLE IF EXISTS transactions;

-- DDLcommand: CREATE a Table

CREATE TABLE IF NOT EXISTS transactions(  
transaction\_id INT AUTO\_INCREMENT PRIMARY KEY,  
transaction\_date DATETIME DEFAULT NOW(),  
Customer\_id INT NOT NULL,  
Product\_id INT NOT NULL,  
quantity INT,  
tax DECIMAL(5,2),  
price DECIMAL(5,2),  
isCustomerMembership BIT DEFAULT 0,  
comments varchar(500) DEFAULT 'NA'  
);

-- DML command: INSERT

INSERT INTO transactions



```
(transaction_date,Customer_id,Product_id,quantity,tax,price,isCustomerMembership,comments)
```

```
VALUES
```

```
('2022-01-27 11:53:45',101,20254,25,0.05,120,1,'Republic day Sale'); -- transaction_id is inserted  
automatically
```

```
SELECT * FROM transactions;
```

```
-- DML command: INSERT
```

```
INSERT INTO transactions
```

```
(Customer_id,Product_id,quantity,tax,price)
```

```
VALUES
```

```
(101,202487,30,0.05,145); -- transaction_id is inserted automatically
```

```
SELECT * FROM transactions;
```

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## Section 5: Create a new Database and Datamodel

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DROP DATABASE IF EXISTS retail;

CREATE DATABASE IF NOT EXISTS retail;

USE retail;

DROP TABLE IF EXISTS customers;

```
CREATE TABLE customers (  
    customerNumber int NOT NULL,  
    customerName varchar(50) NOT NULL,  
    contactLastName varchar(50) NOT NULL,  
    contactFirstName varchar(50) NOT NULL,  
    phone varchar(50) NOT NULL,  
    addressLine1 varchar(50) NOT NULL,  
    addressLine2 varchar(50) DEFAULT NULL,  
    city varchar(50) NOT NULL,  
    state varchar(50) DEFAULT NULL,  
    postalCode varchar(15) DEFAULT NULL,  
    country varchar(50) NOT NULL,  
    salesRepEmployeeNumber int DEFAULT NULL,  
    creditLimit decimal(10,2) DEFAULT NULL
```

```
);
```

```
-- Add a PRIMARY KEY to the table
```

```
-- Syntax: ALTER TABLE <table name> ADD PRIMARY KEY (<primary key column>);
```

```
ALTER TABLE customers ADD PRIMARY KEY (customerNumber);
```

```
DESCRIBE customers;
```

```
DROP TABLE IF EXISTS employees;
```

```
CREATE TABLE employees (
```

```
    employeeNumber INT PRIMARY KEY, -- PRIMARY KEY
```

```
    lastName varchar(50) NOT NULL,
```

```
    firstName varchar(50) NOT NULL,
```

```
    extension varchar(10) NOT NULL,
```

```
    email varchar(100) NOT NULL,
```

```
    officeCode INT NOT NULL,
```

```
    reportsTo int DEFAULT NULL,
```

```
    jobTitle varchar(50) NOT NULL
```

```
);
```

```
DESCRIBE employees;
```

```
-- Add FOREIGN KEY using ALTER
```

```
-- ALTER TABLE <table name> ADD CONSTRAINT <foreign key name> FOREIGN KEY (<column in the child table>)
```

```
-- REFERENCES <parent table name> (<parent table column name>);
```

```
-- foreign key name format: fk_tablename_columnname
```

```
ALTER TABLE employees
```

```
    ADD CONSTRAINT fk_employees_reportsTo
```

```
    FOREIGN KEY (reportsTo)
```

```
    REFERENCES employees (employeeNumber);
```

```
ALTER TABLE customers
```

```
    ADD CONSTRAINT fk_customers_salesRepEmployeeNumber
```

```
    FOREIGN KEY (salesRepEmployeeNumber)
```

```
    REFERENCES employees (employeeNumber);
```

```
DESCRIBE employees;
```

```
DESCRIBE customers;
```

```
-- Constraint names helps us to manage the Keys
```

```
-- ALTER TABLE customers DROP CONSTRAINT fk_customers_salesRepEmployeeNumber;
```

```
DROP TABLE IF EXISTS offices;
```

```
CREATE TABLE offices (
```

```
    officeCode INT AUTO_INCREMENT PRIMARY KEY,
```

```
    city varchar(50) NOT NULL UNIQUE,
```

```
    phone varchar(50) NOT NULL,
```

```
    addressLine1 varchar(50) NOT NULL,
```

```
    addressLine2 varchar(50) DEFAULT NULL,
```

```
    state varchar(50) DEFAULT NULL,
```

```
    country varchar(50) NOT NULL,
```

```
    postalCode varchar(15) NOT NULL,
```

```
    territory varchar(10) NOT NULL
```

```
);
```

```
DESCRIBE offices;
```

```
-- Add FOREIGN KEY using ALTER on employees
```

```
ALTER TABLE employees
```

```
    ADD CONSTRAINT fk_employees_officeCode
```

```

        FOREIGN KEY (officeCode)
REFERENCES offices (officeCode);

DESC employees;

SHOW COLUMNS FROM employees;

/* Key abbreviations:
PRI - Primary Key
UNI - Unique Key
MUL - "Multiple" because multiple occurrences of the same value are allowed.
*/

-- Referential Integrity

DROP TABLE IF EXISTS offices; -- This will result in ERROR
-- Error Code: 3730. Cannot drop table 'offices' referenced by a foreign key constraint
'fk_employees_officeCode' on table 'employees'.

SET foreign_key_checks = 0; -- Disable the foreign key checks
DROP TABLE IF EXISTS offices; -- Now the table can be dropped
SET foreign_key_checks = 1; -- Enable the foreign key check

DROP TABLE IF EXISTS payments;

CREATE TABLE payments (
    customerNumber int NOT NULL,
    checkNumber varchar(50) NOT NULL,
    paymentDate date NOT NULL,
    amount decimal(10,2) NOT NULL,
    PRIMARY KEY (customerNumber,checkNumber), -- COMPOSITE PRIMARY KEY

```

```
CONSTRAINT fk_payments_customerNumber FOREIGN KEY (customerNumber) REFERENCES  
customers (customerNumber)  
);
```

```
DROP TABLE IF EXISTS orders;
```

```
CREATE TABLE orders (  
    orderNumber int NOT NULL,  
    orderDate date NOT NULL,  
    requiredDate date NOT NULL,  
    shippedDate date DEFAULT NULL,  
    status varchar(15) NOT NULL,  
    comments text,  
    customerNumber int NOT NULL,  
    PRIMARY KEY (orderNumber),  
    CONSTRAINT fk_orders_customerNumber FOREIGN KEY (customerNumber) REFERENCES  
    customers (customerNumber)  
);
```

```
DROP TABLE IF EXISTS productlines;
```

```
CREATE TABLE productlines (  
    productLine varchar(50) NOT NULL PRIMARY KEY,  
    textDescription varchar(4000) DEFAULT NULL,  
    htmlDescription mediumtext,  
    image mediumblob  
);
```

```
DROP TABLE IF EXISTS products;
```

```
CREATE TABLE products (  
    productLine varchar(50) NOT NULL PRIMARY KEY,  
    productCode int NOT NULL,  
    productDescription varchar(100) NOT NULL,  
    productPrice decimal(10,2) NOT NULL,  
    productCost decimal(10,2) NOT NULL,  
    productStatus varchar(10) NOT NULL,  
    productImage mediumblob  
);
```

```
productCode varchar(15) NOT NULL,  
productName varchar(70) NOT NULL,  
productLine varchar(50) NOT NULL,  
productScale varchar(10) NOT NULL,  
productVendor varchar(50) NOT NULL,  
productDescription text NOT NULL,  
quantityInStock smallint NOT NULL,  
buyPrice decimal(10,2) NOT NULL,  
MSRP decimal(10,2) NOT NULL,  
PRIMARY KEY (productCode),  
CONSTRAINT fk_products_productLine FOREIGN KEY (productLine) REFERENCES productlines  
(productLine)  
);
```

```
DROP TABLE IF EXISTS orderdetails;
```

```
CREATE TABLE orderdetails (  
    orderNumber int NOT NULL,  
    productCode varchar(15) NOT NULL, -- Create products table first  
    quantityOrdered int NOT NULL,  
    priceEach decimal(10,2) NOT NULL,  
    orderLineNumber smallint NOT NULL,  
    PRIMARY KEY (orderNumber,productCode),  
    CONSTRAINT fk_orderdetails_orderNumber FOREIGN KEY (orderNumber) REFERENCES orders  
(orderNumber),  
    CONSTRAINT fk_orderdetails_productCode FOREIGN KEY (productCode) REFERENCES products  
(productCode)  
);
```

-- Let's look into DML commands - SELECT, INSERT, UPDATE, DELETE

-- 1. SELECT

SELECT \* FROM customers;

-- 2. INSERT

/\* INSERT Syntax:

-- Insert one row

INSERT INTO table(c1,c2,...)

VALUES (v1,v2,...);

-- Insert multiple rows

INSERT INTO table(c1,c2,...)

VALUES

(v11,v12,...),

(v21,v22,...),

...

(vnn,vn2,...);

\*\* Note: Number of columns and values should match in the INSERT statement.

\*/

DESCRIBE offices;

-- Number of columns and values should match in the INSERT statement.

INSERT INTO offices(city,phone,addressLine1,addressLine2,state,country,postalCode,territory)



VALUES

('San Francisco','+1 650 219 4782','100 Market Street','Suite 300','CA','USA','94080','NA');

SELECT \* FROM offices;

TRUNCATE TABLE offices; -- Error; be careful while truncating or deleting the rows in a table.

INSERT INTO offices(city,phone,addressLine1,addressLine2,state,country,postalCode,territory)

VALUES

('Boston','+1 215 837 0825','1550 Court Place','Suite 102','MA','USA','02107','NA'),

('NYC','+1 212 555 3000','523 East 53rd Street','apt. 5A','NY','USA','10022','NA'),

('Paris','+33 14 723 4404','43 Rue Jouffroy D\'abbans',NULL,NULL,'France','75017','EMEA'),

('Tokyo','+81 33 224 5000','4-1 Kioicho',NULL,'Chiyoda-Ku','Japan','102-8578','Japan'),

('Sydney','+61 2 9264 2451','5-11 Wentworth Avenue','Floor #2',NULL,'Australia','NSW 2010','APAC'),

('London','+44 20 7877 2041','25 Old Broad Street','Level 7',NULL,'UK','EC2N 1HN','EMEA');

INSERT INTO

`employees`(`employeeNumber`,`lastName`,`firstName`,`extension`,`email`,`officeCode`,`reportsTo`,`jobTitle`)

VALUES

(1002,'Murphy','Diane','x5800','dmurphy@classicmodelcars.com','1',NULL,'President'),

(1056,'Patterson','Mary','x4611','mpatterso@classicmodelcars.com','1',1002,'VP Sales'),

(1076,'Firrelli','Jeff','x9273','jfirrelli@classicmodelcars.com','1',1002,'VP Marketing'),

(1088,'Patterson','William','x4871','wpatterson@classicmodelcars.com','6',1056,'Sales Manager (APAC)'),

(1102,'Bondur','Gerard','x5408','gbondur@classicmodelcars.com','4',1056,'Sale Manager (EMEA)'),

(1143,'Bow','Anthony','x5428','abow@classicmodelcars.com','1',1056,'Sales Manager (NA)'),

(1165,'Jennings','Leslie','x3291','ljennings@classicmodelcars.com','1',1143,'Sales Rep'),

(1166,'Thompson','Leslie','x4065','lthompson@classicmodelcars.com','1',1143,'Sales Rep'),

(1188,'Firrelli','Julie','x2173','jfirrelli@classicmodelcars.com','2',1143,'Sales Rep'),

(1216,'Patterson','Steve','x4334','spatterson@classicmodelcars.com','2',1143,'Sales Rep'),

(1286,'Tseng','Foon Yue','x2248','ftseng@classicmodelcars.com','3',1143,'Sales Rep'),  
 (1323,'Vanauf','George','x4102','gvanauf@classicmodelcars.com','3',1143,'Sales Rep'),  
 (1337,'Bondur','Loui','x6493','lbondur@classicmodelcars.com','4',1102,'Sales Rep'),  
 (1370,'Hernandez','Gerard','x2028','ghernande@classicmodelcars.com','4',1102,'Sales Rep'),  
 (1401,'Castillo','Pamela','x2759','pcastillo@classicmodelcars.com','4',1102,'Sales Rep'),  
 (1501,'Bott','Larry','x2311','lbott@classicmodelcars.com','7',1102,'Sales Rep'),  
 (1504,'Jones','Barry','x102','bjones@classicmodelcars.com','7',1102,'Sales Rep'),  
 (1611,'Fixter','Andy','x101','afixter@classicmodelcars.com','6',1088,'Sales Rep'),  
 (1612,'Marsh','Peter','x102','pmarsh@classicmodelcars.com','6',1088,'Sales Rep'),  
 (1619,'King','Tom','x103','tking@classicmodelcars.com','6',1088,'Sales Rep'),  
 (1621,'Nishi','Mami','x101','mnishi@classicmodelcars.com','5',1056,'Sales Rep'),  
 (1625,'Kato','Yoshimi','x102','ykato@classicmodelcars.com','5',1621,'Sales Rep'),  
 (1702,'Gerard','Martin','x2312','mgerard@classicmodelcars.com','4',1102,'Sales Rep');

SELECT \* FROM employees;

INSERT INTO `productlines`(`productLine`,`textDescription`,`htmlDescription`,`image`)

VALUES

('Classic Cars','Attention car enthusiasts: Make your wildest car ownership dreams come true. Whether you are looking for classic muscle cars, dream sports cars or movie-inspired miniatures, you will find great choices in this category. These replicas feature superb attention to detail and craftsmanship and offer features such as working steering system, opening forward compartment, opening rear trunk with removable spare wheel, 4-wheel independent spring suspension, and so on. The models range in size from 1:10 to 1:24 scale and include numerous limited edition and several out-of-production vehicles. All models include a certificate of authenticity from their manufacturers and come fully assembled and ready for display in the home or office.',NULL,NULL),

('Motorcycles','Our motorcycles are state of the art replicas of classic as well as contemporary motorcycle legends such as Harley Davidson, Ducati and Vespa. Models contain stunning details such as official logos, rotating wheels, working kickstand, front suspension, gear-shift lever, footbrake lever, and drive chain. Materials used include diecast and plastic. The models range in size from 1:10 to 1:50 scale and include numerous limited edition and several out-of-production vehicles. All models come fully assembled and ready for display in the home or office. Most include a certificate of authenticity.',NULL,NULL),

('Planes','Unique, diecast airplane and helicopter replicas suitable for collections, as well as home, office or classroom decorations. Models contain stunning details such as official logos and insignias,

rotating jet engines and propellers, retractable wheels, and so on. Most come fully assembled and with a certificate of authenticity from their manufacturers.',NULL,NULL),

('Ships','The perfect holiday or anniversary gift for executives, clients, friends, and family. These handcrafted model ships are unique, stunning works of art that will be treasured for generations! They come fully assembled and ready for display in the home or office. We guarantee the highest quality, and best value.',NULL,NULL),

('Trains','Model trains are a rewarding hobby for enthusiasts of all ages. Whether you\'re looking for collectible wooden trains, electric streetcars or locomotives, you\'ll find a number of great choices for any budget within this category. The interactive aspect of trains makes toy trains perfect for young children. The wooden train sets are ideal for children under the age of 5.',NULL,NULL),

('Trucks and Buses','The Truck and Bus models are realistic replicas of buses and specialized trucks produced from the early 1920s to present. The models range in size from 1:12 to 1:50 scale and include numerous limited edition and several out-of-production vehicles. Materials used include tin, diecast and plastic. All models include a certificate of authenticity from their manufacturers and are a perfect ornament for the home and office.',NULL,NULL),

('Vintage Cars','Our Vintage Car models realistically portray automobiles produced from the early 1900s through the 1940s. Materials used include Bakelite, diecast, plastic and wood. Most of the replicas are in the 1:18 and 1:24 scale sizes, which provide the optimum in detail and accuracy. Prices range from \$30.00 up to \$180.00 for some special limited edition replicas. All models include a certificate of authenticity from their manufacturers and come fully assembled and ready for display in the home or office.',NULL,NULL);

SELECT \* FROM productlines;

INSERT INTO

`customers`(`customerNumber`,`customerName`,`contactLastName`,`contactFirstName`,`phone`,`addressLine1`,`addressLine2`,`city`,`state`,`postalCode`,`country`,`salesRepEmployeeNumber`,`creditLimit`)

VALUES

(103,'Atelier graphique','Schmitt','Carine ','40.32.2555','54, rue Royale',NULL,'Nantes',NULL,'44000','France',1370,'21000.00'),

(112,'Signal Gift Stores','King','Jean','7025551838','8489 Strong St.',NULL,'Las Vegas','NV','83030','USA',1166,'71800.00'),

(114,'Australian Collectors, Co.','Ferguson','Peter','03 9520 4555','636 St Kilda Road','Level 3','Melbourne','Victoria','3004','Australia',1611,'117300.00'),

(119,'La Rochelle Gifts','Labrune','Janine ','40.67.8555','67, rue des Cinquante Otages',NULL,'Nantes',NULL,'44000','France',1370,'118200.00'),

(121,'Baane Mini Imports','Bergulfsen','Jonas ','07-98 9555','Erling Skakkes gate 78',NULL,'Stavern',NULL,'4110','Norway',1504,'81700.00'),

(124,'Mini Gifts Distributors Ltd.','Nelson','Susan','4155551450','5677 Strong St.',NULL,'San Rafael','CA','97562','USA',1165,'210500.00'),

(125,'Havel & Zbyszek Co','Piestrzeniewicz','Zbyszek ','(26) 642-7555','ul. Filtrowa 68',NULL,'Warszawa',NULL,'01-012','Poland',NULL,'0.00'),

(128,'Blauer See Auto, Co.','Keitel','Roland','+49 69 66 90 2555','Lyonerstr. 34',NULL,'Frankfurt',NULL,'60528','Germany',1504,'59700.00'),

(129,'Mini Wheels Co.','Murphy','Julie','6505555787','5557 North Pendale Street',NULL,'San Francisco','CA','94217','USA',1165,'64600.00'),

(131,'Land of Toys Inc.','Lee','Kwai','2125557818','897 Long Airport Avenue',NULL,'NYC','NY','10022','USA',1323,'114900.00'),

(141,'Euro+ Shopping Channel','Freyre','Diego ','(91) 555 94 44','C/ Moralzarzal, 86',NULL,'Madrid',NULL,'28034','Spain',1370,'227600.00'),

(144,'Volvo Model Replicas, Co','Berglund','Christina ','0921-12 3555','Berguvsvägen 8',NULL,'Luleå',NULL,'S-958 22','Sweden',1504,'53100.00'),

(145,'Danish Wholesale Imports','Petersen','Jytte ','31 12 3555','Vinbæltet 34',NULL,'Kobenhavn',NULL,'1734','Denmark',1401,'83400.00'),

(146,'Saveley & Henriot, Co.','Saveley','Mary ','78.32.5555','2, rue du Commerce',NULL,'Lyon',NULL,'69004','France',1337,'123900.00'),

(148,'Dragon Souveniers, Ltd.','Natividad','Eric','+65 221 7555','Bronz Sok.','Bronz Apt. 3/6 Tesvikiye','Singapore',NULL,'079903','Singapore',1621,'103800.00'),

(151,'Muscle Machine Inc','Young','Jeff','2125557413','4092 Furth Circle','Suite 400','NYC','NY','10022','USA',1286,'138500.00'),

(157,'Diecast Classics Inc.','Leong','Kelvin','2155551555','7586 Pompton St.',NULL,'Allentown','PA','70267','USA',1216,'100600.00'),

(161,'Technics Stores Inc.','Hashimoto','Juri','6505556809','9408 Furth Circle',NULL,'Burlingame','CA','94217','USA',1165,'84600.00'),

(166,'Handji Gifts& Co','Victorino','Wendy','+65 224 1555','106 Linden Road Sandown','2nd Floor','Singapore',NULL,'069045','Singapore',1612,'97900.00'),

(167,'Herkku Gifts','Oeztan','Veysel','+47 2267 3215','Brehmen St. 121','PR 334 Sentrum','Bergen',NULL,'N 5804','Norway ',1504,'96800.00'),

(168,'American Souvenirs Inc','Franco','Keith','2035557845','149 Spinnaker Dr.','Suite 101','New Haven','CT','97823','USA',1286,'0.00'),

(169,'Porto Imports Co.','de Castro','Isabel ','(1) 356-5555','Estrada da saúde n. 58',NULL,'Lisboa',NULL,'1756','Portugal',NULL,'0.00'),

(171,'Daedalus Designs Imports','Rancé','Martine ','20.16.1555','184, chaussée de Tournai',NULL,'Lille',NULL,'59000','France',1370,'82900.00'),

(172,'La Corne D\'abondance, Co.','Bertrand','Marie','(1) 42.34.2555','265, boulevard Charonne',NULL,'Paris',NULL,'75012','France',1337,'84300.00'),

(173,'Cambridge Collectables Co.','Tseng','Jerry','6175555555','4658 Baden Av.',NULL,'Cambridge','MA','51247','USA',1188,'43400.00'),

(175,'Gift Depot Inc.','King','Julie','2035552570','25593 South Bay Ln.',NULL,'Bridgewater','CT','97562','USA',1323,'84300.00'),

(177,'Osaka Souvenirs Co.','Kentary','Mory','+81 06 6342 5555','1-6-20 Dojima',NULL,'Kita-ku','Osaka','530-0003','Japan',1621,'81200.00'),

(181,'Vitachrome Inc.','Frick','Michael','2125551500','2678 Kingston Rd.','Suite 101','NYC','NY','10022','USA',1286,'76400.00'),

(186,'Toys of Finland, Co.','Karttunen','Matti','90-224 8555','Keskuskatu 45',NULL,'Helsinki',NULL,'21240','Finland',1501,'96500.00'),

(187,'AV Stores, Co.','Ashworth','Rachel','(171) 555-1555','Fauntleroy Circus',NULL,'Manchester',NULL,'EC2 5NT','UK',1501,'136800.00'),

(189,'Clover Collections, Co.','Cassidy','Dean','+353 1862 1555','25 Maiden Lane','Floor No. 4','Dublin',NULL,'2','Ireland',1504,'69400.00'),

(198,'Auto-Moto Classics Inc.','Taylor','Leslie','6175558428','16780 Pompton St.',NULL,'Brickhaven','MA','58339','USA',1216,'23000.00'),

(201,'UK Collectables, Ltd.','Devon','Elizabeth','(171) 555-2282','12, Berkeley Gardens Blvd',NULL,'Liverpool',NULL,'WX1 6LT','UK',1501,'92700.00'),

(202,'Canadian Gift Exchange Network','Tamuri','Yoshi','(604) 555-3392','1900 Oak St.',NULL,'Vancouver','BC','V3F 2K1','Canada',1323,'90300.00'),

(204,'Online Mini Collectables','Barajas','Miguel','6175557555','7635 Spinnaker Dr.',NULL,'Brickhaven','MA','58339','USA',1188,'68700.00'),

(205,'Toys4GrownUps.com','Young','Julie','6265557265','78934 Hillside Dr.',NULL,'Pasadena','CA','90003','USA',1166,'90700.00'),

(206,'Asian Shopping Network, Co','Walker','Brydey','+612 9411 1555','Suntec Tower Three','8 Temasek','Singapore',NULL,'038988','Singapore',NULL,'0.00'),

(209,'Mini Caravy','Citeaux','Frédérique ','88.60.1555','24, place Kléber',NULL,'Strasbourg',NULL,'67000','France',1370,'53800.00'),

(211,'King Kong Collectables, Co.','Gao','Mike','+852 2251 1555','Bank of China Tower','1 Garden Road','Central Hong Kong',NULL,NULL,'Hong Kong',1621,'58600.00'),

(216,'Enaco Distributors','Saavedra','Eduardo ','(93) 203 4555','Rambla de Cataluña, 23',NULL,'Barcelona',NULL,'08022','Spain',1702,'60300.00'),

(219,'Boards & Toys Co.','Young','Mary','3105552373','4097 Douglas Av.',NULL,'Glendale','CA','92561','USA',1166,'11000.00'),

(223,'Natürlich Autos','Kloss','Horst ','0372-555188','Taucherstraße 10',NULL,'Cunewalde',NULL,'01307','Germany',NULL,'0.00'),

(227,'Heintze Collectables','Ibsen','Palle','86 21 3555','Smagsloget 45',NULL,'Århus',NULL,'8200','Denmark',1401,'120800.00'),

(233,'Québec Home Shopping Network','Fresnière','Jean ','(514) 555-8054','43 rue St. Laurent',NULL,'Montréal','Québec','H1J 1C3','Canada',1286,'48700.00'),

(237,'ANG Resellers','Camino','Alejandra ','(91) 745 6555','Gran Vía, 1',NULL,'Madrid',NULL,'28001','Spain',NULL,'0.00'),

(239,'Collectable Mini Designs Co.','Thompson','Valarie','7605558146','361 Furth Circle',NULL,'San Diego','CA','91217','USA',1166,'105000.00'),

(240,'giftsbymail.co.uk','Bennett','Helen ','(198) 555-8888','Garden House','Crowther Way 23','Cowes','Isle of Wight','PO31 7PJ','UK',1501,'93900.00'),

(242,'Alpha Cognac','Roulet','Annette ','61.77.6555','1 rue Alsace-Lorraine',NULL,'Toulouse',NULL,'31000','France',1370,'61100.00'),

(247,'Messner Shopping Network','Messner','Renate ','069-0555984','Magazinweg 7',NULL,'Frankfurt',NULL,'60528','Germany',NULL,'0.00'),

(249,'Amica Models & Co.','Accorti','Paolo ','011-4988555','Via Monte Bianco 34',NULL,'Torino',NULL,'10100','Italy',1401,'113000.00'),

(250,'Lyon Souvenirs','Da Silva','Daniel','+33 1 46 62 7555','27 rue du Colonel Pierre Avia',NULL,'Paris',NULL,'75508','France',1337,'68100.00'),

(256,'Auto Associés & Cie.','Tonini','Daniel ','30.59.8555','67, avenue de l'Europe',NULL,'Versailles',NULL,'78000','France',1370,'77900.00'),

(259,'Toms Spezialitäten, Ltd','Pfalzheim','Henriette ','0221-5554327','Mehrheimerstr. 369',NULL,'Köln',NULL,'50739','Germany',1504,'120400.00'),

(260,'Royal Canadian Collectables, Ltd.','Lincoln','Elizabeth ','(604) 555-4555','23 Tsawassen Blvd.',NULL,'Tsawassen','BC','T2F 8M4','Canada',1323,'89600.00'),

(273,'Franken Gifts, Co','Franken','Peter ','089-0877555','Berliner Platz 43',NULL,'München',NULL,'80805','Germany',NULL,'0.00'),

(276,'Anna\'s Decorations, Ltd','O\'Hara','Anna','02 9936 8555','201 Miller Street','Level 15','North Sydney','NSW','2060','Australia',1611,'107800.00'),

(278,'Rovelli Gifts','Rovelli','Giovanni ','035-640555','Via Ludovico il Moro 22',NULL,'Bergamo',NULL,'24100','Italy',1401,'119600.00'),

(282,'Souvenirs And Things Co.','Huxley','Adrian','+61 2 9495 8555','Monitor Money Building','815 Pacific Hwy','Chatswood','NSW','2067','Australia',1611,'93300.00'),

(286,'Marta\'s Replicas Co.','Hernandez','Marta','6175558555','39323 Spinnaker Dr.',NULL,'Cambridge','MA','51247','USA',1216,'123700.00'),

(293,'BG&E Collectables','Harrison','Ed','+41 26 425 50 01','Rte des Arsenaux 41',NULL,'Fribourg',NULL,'1700','Switzerland',NULL,'0.00'),



(298,'Vida Sport, Ltd','Holz','Mihael','0897-034555','Grenzacherweg  
237',NULL,'Genève',NULL,'1203','Switzerland',1702,'141300.00'),

(299,'Norway Gifts By Mail, Co.','Klaeboe','Jan','+47 2212 1555','Drammensveien 126A','PB 211  
Sentrum','Oslo',NULL,'N 0106','Norway ',1504,'95100.00'),

(303,'Schuyler Imports','Schuyler','Bradley','+31 20 491 9555','Kingsfordweg  
151',NULL,'Amsterdam',NULL,'1043 GR','Netherlands',NULL,'0.00'),

(307,'Der Hund Imports','Andersen','Mel','030-0074555','Obere Str.  
57',NULL,'Berlin',NULL,'12209','Germany',NULL,'0.00'),

(311,'Oulu Toy Supplies, Inc.','Koskitalo','Pirkko','981-443655','Torikatu  
38',NULL,'Oulu',NULL,'90110','Finland',1501,'90500.00'),

(314,'Petit Auto','Dewey','Catherine ','(02) 5554 67','Rue Joseph-Bens 532',NULL,'Bruxelles',NULL,'B-  
1180','Belgium',1401,'79900.00'),

(319,'Mini Classics','Frick','Steve','9145554562','3758 North Pendale Street',NULL,'White  
Plains','NY','24067','USA',1323,'102700.00'),

(320,'Mini Creations Ltd.','Huang','Wing','5085559555','4575 Hillside Dr.',NULL,'New  
Bedford','MA','50553','USA',1188,'94500.00'),

(321,'Corporate Gift Ideas Co.','Brown','Julie','6505551386','7734 Strong St.',NULL,'San  
Francisco','CA','94217','USA',1165,'105000.00'),

(323,'Down Under Souvenirs, Inc','Graham','Mike','+64 9 312 5555','162-164 Grafton Road','Level  
2','Auckland ',NULL,NULL,'New Zealand',1612,'88000.00'),

(324,'Stylish Desk Decors, Co.','Brown','Ann ','(171) 555-0297','35 King  
George',NULL,'London',NULL,'WX3 6FW','UK',1501,'77000.00'),

(328,'Tekni Collectables Inc.','Brown','William','2015559350','7476 Moss  
Rd.',NULL,'Newark','NJ','94019','USA',1323,'43000.00'),

(333,'Australian Gift Network, Co','Calaghan','Ben','61-7-3844-6555','31 Duncan St. West End',NULL,'South Brisbane','Queensland','4101','Australia',1611,'51600.00'),

(334,'Suominen Souvenirs','Suominen','Kalle','+358 9 8045 555','Software Engineering Center','SEC Oy','Espoo',NULL,'FIN-02271','Finland',1501,'98800.00'),

(335,'Cramer Spezialitäten, Ltd','Cramer','Philip ','0555-09555','Maubelstr. 90',NULL,'Brandenburg',NULL,'14776','Germany',NULL,'0.00'),

(339,'Classic Gift Ideas, Inc','Cervantes','Francisca','2155554695','782 First Street',NULL,'Philadelphia','PA','71270','USA',1188,'81100.00'),

(344,'CAF Imports','Fernandez','Jesus','+34 913 728 555','Merchants House','27-30 Merchant\'s Quay','Madrid',NULL,'28023','Spain',1702,'59600.00'),

(347,'Men \'R\' US Retailers, Ltd.','Chandler','Brian','2155554369','6047 Douglas Av.',NULL,'Los Angeles','CA','91003','USA',1166,'57700.00'),

(348,'Asian Treasures, Inc.','McKenna','Patricia ','2967 555','8 Johnstown Road',NULL,'Cork','Co. Cork',NULL,'Ireland',NULL,'0.00'),

(350,'Marseille Mini Autos','Lebihan','Laurence ','91.24.4555','12, rue des Bouchers',NULL,'Marseille',NULL,'13008','France',1337,'65000.00'),

(353,'Reims Collectables','Henriot','Paul ','26.47.1555','59 rue de l\'Abbaye',NULL,'Reims',NULL,'51100','France',1337,'81100.00'),

(356,'SAR Distributors, Co','Kuger','Armand','+27 21 550 3555','1250 Pretorius Street',NULL,'Hatfield','Pretoria','0028','South Africa',NULL,'0.00'),

(357,'GiftsForHim.com','MacKinlay','Wales','64-9-3763555','199 Great North Road',NULL,'Auckland',NULL,NULL,'New Zealand',1612,'77700.00'),

(361,'Kommission Auto','Josephs','Karin','0251-555259','Luisenstr.  
48',NULL,'Münster',NULL,'44087','Germany',NULL,'0.00'),

(362,'Gifts4AllAges.com','Yoshido','Juri','6175559555','8616 Spinnaker  
Dr.',NULL,'Boston','MA','51003','USA',1216,'41900.00'),

(363,'Online Diecast Creations Co.','Young','Dorothy','6035558647','2304 Long Airport  
Avenue',NULL,'Nashua','NH','62005','USA',1216,'114200.00'),

(369,'Lisboa Souvenirs, Inc','Rodriguez','Lino ','(1) 354-2555','Jardim das rosas n.  
32',NULL,'Lisboa',NULL,'1675','Portugal',NULL,'0.00'),

(376,'Precious Collectables','Urs','Braun','0452-076555','Hauptstr.  
29',NULL,'Bern',NULL,'3012','Switzerland',1702,'0.00'),

(379,'Collectables For Less Inc.','Nelson','Allen','6175558555','7825 Douglas  
Av.',NULL,'Brickhaven','MA','58339','USA',1188,'70700.00'),

(381,'Royale Belge','Cartrain','Pascale ','(071) 23 67 2555','Boulevard Tirou,  
255',NULL,'Charleroi',NULL,'B-6000','Belgium',1401,'23500.00'),

(382,'Salzburg Collectables','Pipps','Georg ','6562-9555','Geislweg  
14',NULL,'Salzburg',NULL,'5020','Austria',1401,'71700.00'),

(385,'Cruz & Sons Co.','Cruz','Arnold','+63 2 555 3587','15 McCallum Street','NatWest Center #13-  
03','Makati City',NULL,'1227 MM','Philippines',1621,'81500.00'),

(386,'L\'ordine Souvenirs','Moroni','Maurizio ','0522-556555','Strada Provinciale 124',NULL,'Reggio  
Emilia',NULL,'42100','Italy',1401,'121400.00'),

(398,'Tokyo Collectables, Ltd','Shimamura','Akiko','+81 3 3584 0555','2-2-8 Roppongi',NULL,'Minato-  
ku','Tokyo','106-0032','Japan',1621,'94400.00'),

(406,'Auto Canal+ Petit','Perrier','Dominique','(1) 47.55.6555','25, rue  
Lauriston',NULL,'Paris',NULL,'75016','France',1337,'95000.00'),

(409,'Stuttgart Collectable Exchange','Müller','Rita ','0711-555361','Adenauerallee  
900',NULL,'Stuttgart',NULL,'70563','Germany',NULL,'0.00'),

(412,'Extreme Desk Decorations, Ltd','McRoy','Sarah','04 499 9555','101 Lambton Quay','Level  
11','Wellington',NULL,NULL,'New Zealand',1612,'86800.00'),

(415,'Bavarian Collectables Imports, Co.','Donnermeyer','Michael',' +49 89 61 08 9555','Hansastr.  
15',NULL,'Munich',NULL,'80686','Germany',1504,'77000.00'),

(424,'Classic Legends Inc.','Hernandez','Maria','2125558493','5905 Pompton St.','Suite  
750','NYC','NY','10022','USA',1286,'67500.00'),

(443,'Feuer Online Stores, Inc','Feuer','Alexander ','0342-555176','Heerstr.  
22',NULL,'Leipzig',NULL,'04179','Germany',NULL,'0.00'),

(447,'Gift Ideas Corp.','Lewis','Dan','2035554407','2440 Pompton  
St.',NULL,'Glendale','CT','97561','USA',1323,'49700.00'),

(448,'Scandinavian Gift Ideas','Larsson','Martha','0695-34 6555','Åkergatan  
24',NULL,'Bräcke',NULL,'S-844 67','Sweden',1504,'116400.00'),

(450,'The Sharp Gifts Warehouse','Frick','Sue','4085553659','3086 Ingle Ln.',NULL,'San  
Jose','CA','94217','USA',1165,'77600.00'),

(452,'Mini Auto Werke','Mendel','Roland ','7675-3555','Kirchgasse  
6',NULL,'Graz',NULL,'8010','Austria',1401,'45300.00'),

(455,'Super Scale Inc.','Murphy','Leslie','2035559545','567 North Pendale Street',NULL,'New  
Haven','CT','97823','USA',1286,'95400.00'),

(456,'Microscale Inc.','Choi','Yu','2125551957','5290 North Pendale Street','Suite  
200','NYC','NY','10022','USA',1286,'39800.00'),

(458,'Corrida Auto Replicas, Ltd','Sommer','Martín ','(91) 555 22 82','C/ Araquil, 67',NULL,'Madrid',NULL,'28023','Spain',1702,'104600.00'),

(459,'Warburg Exchange','Ottlieb','Sven ','0241-039123','Walserweg 21',NULL,'Aachen',NULL,'52066','Germany',NULL,'0.00'),

(462,'FunGiftIdeas.com','Benitez','Violeta','5085552555','1785 First Street',NULL,'New Bedford','MA','50553','USA',1216,'85800.00'),

(465,'Anton Designs, Ltd.','Anton','Carmen','+34 913 728555','c/ Gobelás, 19-1 Urb. La Florida',NULL,'Madrid',NULL,'28023','Spain',NULL,'0.00'),

(471,'Australian Collectables, Ltd','Clenahan','Sean','61-9-3844-6555','7 Allen Street',NULL,'Glen Waverly','Victoria','3150','Australia',1611,'60300.00'),

(473,'Frau da Collezione','Ricotti','Franco','+39 022515555','20093 Cologno Monzese','Alessandro Volta 16','Milan',NULL,NULL,'Italy',1401,'34800.00'),

(475,'West Coast Collectables Co.','Thompson','Steve','3105553722','3675 Furth Circle',NULL,'Burbank','CA','94019','USA',1166,'55400.00'),

(477,'Mit Vergnügen & Co.','Moos','Hanna ','0621-08555','Forsterstr. 57',NULL,'Mannheim',NULL,'68306','Germany',NULL,'0.00'),

(480,'Kremlin Collectables, Co.','Semenov','Alexander ','+7 812 293 0521','2 Pobedy Square',NULL,'Saint Petersburg',NULL,'196143','Russia',NULL,'0.00'),

(481,'Raanan Stores, Inc','Altagar,G M','Raanan','+ 972 9 959 8555','3 Hagalim Blv.','NULL,'Herzlia',NULL,'47625','Israel',NULL,'0.00'),

(484,'Iberia Gift Imports, Corp.','Roel','José Pedro ','(95) 555 82 82','C/ Romero, 33',NULL,'Sevilla',NULL,'41101','Spain',1702,'65700.00'),

(486,'Motor Mint Distributors Inc.','Salazar','Rosa','2155559857','11328 Douglas Av.','NULL,'Philadelphia','PA','71270','USA',1323,'72600.00'),

(487,'Signal Collectibles Ltd.','Taylor','Sue','4155554312','2793 Furth Circle',NULL,'Brisbane','CA','94217','USA',1165,'60300.00'),

(489,'Double Decker Gift Stores, Ltd','Smith','Thomas ','(171) 555-7555','120 Hanover Sq.',NULL,'London',NULL,'WA1 1DP','UK',1501,'43300.00'),

(495,'Diecast Collectables','Franco','Valarie','6175552555','6251 Ingle Ln.',NULL,'Boston','MA','51003','USA',1188,'85100.00'),

(496,'Kelly\'s Gift Shop','Snowden','Tony','+64 9 5555500','Arenales 1938 3\'A\'',NULL,'Auckland',NULL,NULL,'New Zealand',1612,'110000.00');

SELECT \* FROM customers;

INSERT INTO

`products`(`productCode`,`productName`,`productLine`,`productScale`,`productVendor`,`productDescription`,`quantityInStock`,`buyPrice`,`MSRP`)

VALUES

('S10\_1678','1969 Harley Davidson Ultimate Chopper','Motorcycles','1:10','Min Lin Diecast','This replica features working kickstand, front suspension, gear-shift lever, footbrake lever, drive chain, wheels and steering. All parts are particularly delicate due to their precise scale and require special care and attention.','7933','48.81','95.70'),

('S10\_1949','1952 Alpine Renault 1300','Classic Cars','1:10','Classic Metal Creations','Turnable front wheels; steering function; detailed interior; detailed engine; opening hood; opening trunk; opening doors; and detailed chassis.','7305','98.58','214.30'),

('S10\_2016','1996 Moto Guzzi 1100i','Motorcycles','1:10','Highway 66 Mini Classics','Official Moto Guzzi logos and insignias, saddle bags located on side of motorcycle, detailed engine, working steering, working suspension, two leather seats, luggage rack, dual exhaust pipes, small saddle bag located on handle bars, two-tone paint with chrome accents, superior die-cast detail , rotating wheels , working kick stand, diecast metal with plastic parts and baked enamel finish.','6625','68.99','118.94'),

('S10\_4698','2003 Harley-Davidson Eagle Drag Bike','Motorcycles','1:10','Red Start Diecast','Model features, official Harley Davidson logos and insignias, detachable rear wheelie bar, heavy diecast metal with resin parts, authentic multi-color tampon-printed graphics, separate engine drive belts, free-turning front fork, rotating tires and rear racing slick, certificate of authenticity, detailed engine, display stand\r\n, precision diecast replica, baked enamel finish, 1:10 scale model, removable

fender, seat and tank cover piece for displaying the superior detail of the v-twin engine',5582,'91.02','193.66'),

('S10\_4757','1972 Alfa Romeo GTA','Classic Cars','1:10','Motor City Art Classics','Features include: Turnable front wheels; steering function; detailed interior; detailed engine; opening hood; opening trunk; opening doors; and detailed chassis.',3252,'85.68','136.00'),

('S10\_4962','1962 LanciaA Delta 16V','Classic Cars','1:10','Second Gear Diecast','Features include: Turnable front wheels; steering function; detailed interior; detailed engine; opening hood; opening trunk; opening doors; and detailed chassis.',6791,'103.42','147.74'),

('S12\_1099','1968 Ford Mustang','Classic Cars','1:12','Autoart Studio Design','Hood, doors and trunk all open to reveal highly detailed interior features. Steering wheel actually turns the front wheels. Color dark green.',68,'95.34','194.57'),

('S12\_1108','2001 Ferrari Enzo','Classic Cars','1:12','Second Gear Diecast','Turnable front wheels; steering function; detailed interior; detailed engine; opening hood; opening trunk; opening doors; and detailed chassis.',3619,'95.59','207.80'),

('S12\_1666','1958 Setra Bus','Trucks and Buses','1:12','Welly Diecast Productions','Model features 30 windows, skylights & glare resistant glass, working steering system, original logos',1579,'77.90','136.67'),

('S12\_2823','2002 Suzuki XREO','Motorcycles','1:12','Unimax Art Galleries','Official logos and insignias, saddle bags located on side of motorcycle, detailed engine, working steering, working suspension, two leather seats, luggage rack, dual exhaust pipes, small saddle bag located on handle bars, two-tone paint with chrome accents, superior die-cast detail , rotating wheels , working kick stand, diecast metal with plastic parts and baked enamel finish.',9997,'66.27','150.62'),

('S12\_3148','1969 Corvair Monza','Classic Cars','1:18','Welly Diecast Productions','1:18 scale die-cast about 10\" long doors open, hood opens, trunk opens and wheels roll',6906,'89.14','151.08'),

('S12\_3380','1968 Dodge Charger','Classic Cars','1:12','Welly Diecast Productions','1:12 scale model of a 1968 Dodge Charger. Hood, doors and trunk all open to reveal highly detailed interior features. Steering wheel actually turns the front wheels. Color black',9123,'75.16','117.44'),

('S12\_3891','1969 Ford Falcon','Classic Cars','1:12','Second Gear Diecast','Turnable front wheels; steering function; detailed interior; detailed engine; opening hood; opening trunk; opening doors; and detailed chassis.',1049,'83.05','173.02'),

('S12\_3990','1970 Plymouth Hemi Cuda','Classic Cars','1:12','Studio M Art Models','Very detailed 1970 Plymouth Cuda model in 1:12 scale. The Cuda is generally accepted as one of the fastest original muscle cars from the 1970s. This model is a reproduction of one of the original 652 cars built in 1970. Red color.',5663,'31.92','79.80'),

('S12\_4473','1957 Chevy Pickup','Trucks and Buses','1:12','Exoto Designs','1:12 scale die-cast about 20\" long Hood opens, Rubber wheels',6125,'55.70','118.50'),

('S12\_4675','1969 Dodge Charger','Classic Cars','1:12','Welly Diecast Productions','Detailed model of the 1969 Dodge Charger. This model includes finely detailed interior and exterior features. Painted in red and white.',7323,'58.73','115.16'),

('S18\_1097','1940 Ford Pickup Truck','Trucks and Buses','1:18','Studio M Art Models','This model features soft rubber tires, working steering, rubber mud guards, authentic Ford logos, detailed

undercarriage, opening doors and hood, removable split rear gate, full size spare mounted in bed, detailed interior with opening glove box',2613,'58.33','116.67'),

('S18\_1129','1993 Mazda RX-7','Classic Cars','1:18','Highway 66 Mini Classics','This model features, opening hood, opening doors, detailed engine, rear spoiler, opening trunk, working steering, tinted windows, baked enamel finish. Color red.',3975,'83.51','141.54'),

('S18\_1342','1937 Lincoln Berline','Vintage Cars','1:18','Motor City Art Classics','Features opening engine cover, doors, trunk, and fuel filler cap. Color black',8693,'60.62','102.74'),

('S18\_1367','1936 Mercedes-Benz 500K Special Roadster','Vintage Cars','1:18','Studio M Art Models','This 1:18 scale replica is constructed of heavy die-cast metal and has all the features of the original: working doors and rumble seat, independent spring suspension, detailed interior, working steering system, and a bifold hood that reveals an engine so accurate that it even includes the wiring. All this is topped off with a baked enamel finish. Color white.',8635,'24.26','53.91'),

('S18\_1589','1965 Aston Martin DB5','Classic Cars','1:18','Classic Metal Creations','Die-cast model of the silver 1965 Aston Martin DB5 in silver. This model includes full wire wheels and doors that open with fully detailed passenger compartment. In 1:18 scale, this model measures approximately 10 inches/20 cm long.',9042,'65.96','124.44'),

('S18\_1662','1980s Black Hawk Helicopter','Planes','1:18','Red Start Diecast','1:18 scale replica of actual Army\'s UH-60L BLACK HAWK Helicopter. 100% hand-assembled. Features rotating rotor blades, propeller blades and rubber wheels.',5330,'77.27','157.69'),

('S18\_1749','1917 Grand Touring Sedan','Vintage Cars','1:18','Welly Diecast Productions','This 1:18 scale replica of the 1917 Grand Touring car has all the features you would expect from museum quality reproductions: all four doors and bi-fold hood opening, detailed engine and instrument panel, chrome-look trim, and tufted upholstery, all topped off with a factory baked-enamel finish.',2724,'86.70','170.00'),

('S18\_1889','1948 Porsche 356-A Roadster','Classic Cars','1:18','Gearbox Collectibles','This precision die-cast replica features opening doors, superb detail and craftsmanship, working steering system, opening forward compartment, opening rear trunk with removable spare, 4 wheel independent spring suspension as well as factory baked enamel finish.',8826,'53.90','77.00'),

('S18\_1984','1995 Honda Civic','Classic Cars','1:18','Min Lin Diecast','This model features, opening hood, opening doors, detailed engine, rear spoiler, opening trunk, working steering, tinted windows, baked enamel finish. Color yellow.',9772,'93.89','142.25'),

('S18\_2238','1998 Chrysler Plymouth Prowler','Classic Cars','1:18','Gearbox Collectibles','Turnable front wheels; steering function; detailed interior; detailed engine; opening hood; opening trunk; opening doors; and detailed chassis.',4724,'101.51','163.73'),

('S18\_2248','1911 Ford Town Car','Vintage Cars','1:18','Motor City Art Classics','Features opening hood, opening doors, opening trunk, wide white wall tires, front door arm rests, working steering system.',540,'33.30','60.54'),

('S18\_2319','1964 Mercedes Tour Bus','Trucks and Buses','1:18','Unimax Art Galleries','Exact replica. 100+ parts. working steering system, original logos',8258,'74.86','122.73'),

('S18\_2325','1932 Model A Ford J-Coupe','Vintage Cars','1:18','Autoart Studio Design','This model features grille-mounted chrome horn, lift-up louvered hood, fold-down rumble seat, working



steering system, chrome-covered spare, opening doors, detailed and wired engine',9354,'58.48','127.13'),

('S18\_2432','1926 Ford Fire Engine','Trucks and Buses','1:18','Carousel DieCast Legends','Gleaming red handsome appearance. Everything is here the fire hoses, ladder, axes, bells, lanterns, ready to fight any inferno.',2018,'24.92','60.77'),

('S18\_2581','P-51-D Mustang','Planes','1:72','Gearbox Collectibles','Has retractable wheels and comes with a stand',992,'49.00','84.48'),

('S18\_2625','1936 Harley Davidson El Knucklehead','Motorcycles','1:18','Welly Diecast Productions','Intricately detailed with chrome accents and trim, official die-struck logos and baked enamel finish.',4357,'24.23','60.57'),

('S18\_2795','1928 Mercedes-Benz SSK','Vintage Cars','1:18','Gearbox Collectibles','This 1:18 replica features grille-mounted chrome horn, lift-up louvered hood, fold-down rumble seat, working steering system, chrome-covered spare, opening doors, detailed and wired engine. Color black.',548,'72.56','168.75'),

('S18\_2870','1999 Indy 500 Monte Carlo SS','Classic Cars','1:18','Red Start Diecast','Features include opening and closing doors. Color: Red',8164,'56.76','132.00'),

('S18\_2949','1913 Ford Model T Speedster','Vintage Cars','1:18','Carousel DieCast Legends','This 250 part reproduction includes moving handbrakes, clutch, throttle and foot pedals, squeezable horn, detailed wired engine, removable water, gas, and oil cans, pivoting monocular windshield, all topped with a baked enamel red finish. Each replica comes with an Owners Title and Certificate of Authenticity. Color red.',4189,'60.78','101.31'),

('S18\_2957','1934 Ford V8 Coupe','Vintage Cars','1:18','Min Lin Diecast','Chrome Trim, Chrome Grille, Opening Hood, Opening Doors, Opening Trunk, Detailed Engine, Working Steering System',5649,'34.35','62.46'),

('S18\_3029','1999 Yamaha Speed Boat','Ships','1:18','Min Lin Diecast','Exact replica. Wood and Metal. Many extras including rigging, long boats, pilot house, anchors, etc. Comes with three masts, all square-rigged.',4259,'51.61','86.02'),

('S18\_3136','18th Century Vintage Horse Carriage','Vintage Cars','1:18','Red Start Diecast','Hand crafted diecast-like metal horse carriage is re-created in about 1:18 scale of antique horse carriage. This antique style metal Stagecoach is all hand-assembled with many different parts.\r\n\r\nThis collectible metal horse carriage is painted in classic Red, and features turning steering wheel and is entirely hand-finished.',5992,'60.74','104.72'),

('S18\_3140','1903 Ford Model A','Vintage Cars','1:18','Unimax Art Galleries','Features opening trunk, working steering system',3913,'68.30','136.59'),

('S18\_3232','1992 Ferrari 360 Spider red','Classic Cars','1:18','Unimax Art Galleries','his replica features opening doors, superb detail and craftsmanship, working steering system, opening forward compartment, opening rear trunk with removable spare, 4 wheel independent spring suspension as well as factory baked enamel finish.',8347,'77.90','169.34'),

('S18\_3233','1985 Toyota Supra','Classic Cars','1:18','Highway 66 Mini Classics','This model features soft rubber tires, working steering, rubber mud guards, authentic Ford logos, detailed undercarriage,

opening doors and hood, removable split rear gate, full size spare mounted in bed, detailed interior with opening glove box',7733,'57.01','107.57'),

('S18\_3259','Collectable Wooden Train','Trains','1:18','Carousel DieCast Legends','Hand crafted wooden toy train set is in about 1:18 scale, 25 inches in total length including 2 additional carts, of actual vintage train. This antique style wooden toy train model set is all hand-assembled with 100% wood.',6450,'67.56','100.84'),

('S18\_3278','1969 Dodge Super Bee','Classic Cars','1:18','Min Lin Diecast','This replica features opening doors, superb detail and craftsmanship, working steering system, opening forward compartment, opening rear trunk with removable spare, 4 wheel independent spring suspension as well as factory baked enamel finish.',1917,'49.05','80.41'),

('S18\_3320','1917 Maxwell Touring Car','Vintage Cars','1:18','Exoto Designs','Features Gold Trim, Full Size Spare Tire, Chrome Trim, Chrome Grille, Opening Hood, Opening Doors, Opening Trunk, Detailed Engine, Working Steering System',7913,'57.54','99.21'),

('S18\_3482','1976 Ford Gran Torino','Classic Cars','1:18','Gearbox Collectibles','Highly detailed 1976 Ford Gran Torino \"Starsky and Hutch\" diecast model. Very well constructed and painted in red and white patterns.',9127,'73.49','146.99'),

('S18\_3685','1948 Porsche Type 356 Roadster','Classic Cars','1:18','Gearbox Collectibles','This model features working front and rear suspension on accurately replicated and actuating shock absorbers as well as opening engine cover, rear stabilizer flap, and 4 opening doors.',8990,'62.16','141.28'),

('S18\_3782','1957 Vespa GS150','Motorcycles','1:18','Studio M Art Models','Features rotating wheels , working kick stand. Comes with stand.',7689,'32.95','62.17'),

('S18\_3856','1941 Chevrolet Special Deluxe Cabriolet','Vintage Cars','1:18','Exoto Designs','Features opening hood, opening doors, opening trunk, wide white wall tires, front door arm rests, working steering system, leather upholstery. Color black.',2378,'64.58','105.87'),

('S18\_4027','1970 Triumph Spitfire','Classic Cars','1:18','Min Lin Diecast','Features include opening and closing doors. Color: White.',5545,'91.92','143.62'),

('S18\_4409','1932 Alfa Romeo 8C2300 Spider Sport','Vintage Cars','1:18','Exoto Designs','This 1:18 scale precision die cast replica features the 6 front headlights of the original, plus a detailed version of the 142 horsepower straight 8 engine, dual spares and their famous comprehensive dashboard. Color black.',6553,'43.26','92.03'),

('S18\_4522','1904 Buick Runabout','Vintage Cars','1:18','Exoto Designs','Features opening trunk, working steering system',8290,'52.66','87.77'),

('S18\_4600','1940s Ford truck','Trucks and Buses','1:18','Motor City Art Classics','This 1940s Ford Pick-Up truck is re-created in 1:18 scale of original 1940s Ford truck. This antique style metal 1940s Ford Flatbed truck is all hand-assembled. This collectible 1940's Pick-Up truck is painted in classic dark green color, and features rotating wheels.',3128,'84.76','121.08'),

('S18\_4668','1939 Cadillac Limousine','Vintage Cars','1:18','Studio M Art Models','Features completely detailed interior including Velvet flocked drapes,deluxe wood grain floor, and a wood grain casket with seperate chrome handles',6645,'23.14','50.31'),

('S18\_4721','1957 Corvette Convertible','Classic Cars','1:18','Classic Metal Creations','1957 die cast Corvette Convertible in Roman Red with white sides and whitewall tires. 1:18 scale quality die-cast

with detailed engine and underbody. Now you can own The Classic Corvette.',1249,'69.93','148.80'),

('S18\_4933','1957 Ford Thunderbird','Classic Cars','1:18','Studio M Art Models','This 1:18 scale precision die-cast replica, with its optional porthole hardtop and factory baked-enamel Thunderbird Bronze finish, is a 100% accurate rendition of this American classic.',3209,'34.21','71.27'),

('S24\_1046','1970 Chevy Chevelle SS 454','Classic Cars','1:24','Unimax Art Galleries','This model features rotating wheels, working steering system and opening doors. All parts are particularly delicate due to their precise scale and require special care and attention. It should not be picked up by the doors, roof, hood or trunk.',1005,'49.24','73.49'),

('S24\_1444','1970 Dodge Coronet','Classic Cars','1:24','Highway 66 Mini Classics','1:24 scale die-cast about 18" long doors open, hood opens and rubber wheels',4074,'32.37','57.80'),

('S24\_1578','1997 BMW R 1100 S','Motorcycles','1:24','Autoart Studio Design','Detailed scale replica with working suspension and constructed from over 70 parts',7003,'60.86','112.70'),

('S24\_1628','1966 Shelby Cobra 427 S/C','Classic Cars','1:24','Carousel DieCast Legends','This diecast model of the 1966 Shelby Cobra 427 S/C includes many authentic details and operating parts. The 1:24 scale model of this iconic lightweight sports car from the 1960s comes in silver and it's own display case.',8197,'29.18','50.31'),

('S24\_1785','1928 British Royal Navy Airplane','Planes','1:24','Classic Metal Creations','Official logos and insignias',3627,'66.74','109.42'),

('S24\_1937','1939 Chevrolet Deluxe Coupe','Vintage Cars','1:24','Motor City Art Classics','This 1:24 scale die-cast replica of the 1939 Chevrolet Deluxe Coupe has the same classy look as the original. Features opening trunk, hood and doors and a showroom quality baked enamel finish.',7332,'22.57','33.19'),

('S24\_2000','1960 BSA Gold Star DBD34','Motorcycles','1:24','Highway 66 Mini Classics','Detailed scale replica with working suspension and constructed from over 70 parts',15,'37.32','76.17'),

('S24\_2011','18th century schooner','Ships','1:24','Carousel DieCast Legends','All wood with canvas sails. Many extras including rigging, long boats, pilot house, anchors, etc. Comes with 4 masts, all square-rigged.',1898,'82.34','122.89'),

('S24\_2022','1938 Cadillac V-16 Presidential Limousine','Vintage Cars','1:24','Classic Metal Creations','This 1:24 scale precision die cast replica of the 1938 Cadillac V-16 Presidential Limousine has all the details of the original, from the flags on the front to an opening back seat compartment complete with telephone and rifle. Features factory baked-enamel black finish, hood goddess ornament, working jump seats.',2847,'20.61','44.80'),

('S24\_2300','1962 Volkswagen Microbus','Trucks and Buses','1:24','Autoart Studio Design','This 1:18 scale die cast replica of the 1962 Microbus is loaded with features: A working steering system, opening front doors and tailgate, and famous two-tone factory baked enamel finish, are all topped off by the sliding, real fabric, sunroof.',2327,'61.34','127.79'),

('S24\_2360','1982 Ducati 900 Monster','Motorcycles','1:24','Highway 66 Mini Classics','Features two-tone paint with chrome accents, superior die-cast detail , rotating wheels , working kick stand',6840,'47.10','69.26'),

('S24\_2766','1949 Jaguar XK 120','Classic Cars','1:24','Classic Metal Creations','Precision-engineered from original Jaguar specification in perfect scale ratio. Features opening doors, superb detail and craftsmanship, working steering system, opening forward compartment, opening rear trunk with removable spare, 4 wheel independent spring suspension as well as factory baked enamel finish.','2350','47.25','90.87'),

('S24\_2840','1958 Chevy Corvette Limited Edition','Classic Cars','1:24','Carousel DieCast Legends','The operating parts of this 1958 Chevy Corvette Limited Edition are particularly delicate due to their precise scale and require special care and attention. Features rotating wheels, working steering, opening doors and trunk. Color dark green.','2542','15.91','35.36'),

('S24\_2841','1900s Vintage Bi-Plane','Planes','1:24','Autoart Studio Design','Hand crafted diecast-like metal bi-plane is re-created in about 1:24 scale of antique pioneer airplane. All hand-assembled with many different parts. Hand-painted in classic yellow and features correct markings of original airplane.','5942','34.25','68.51'),

('S24\_2887','1952 Citroen-15CV','Classic Cars','1:24','Exoto Designs','Precision crafted hand-assembled 1:18 scale reproduction of the 1952 15CV, with its independent spring suspension, working steering system, opening doors and hood, detailed engine and instrument panel, all topped of with a factory fresh baked enamel finish.','1452','72.82','117.44'),

('S24\_2972','1982 Lamborghini Diablo','Classic Cars','1:24','Second Gear Diecast','This replica features opening doors, superb detail and craftsmanship, working steering system, opening forward compartment, opening rear trunk with removable spare, 4 wheel independent spring suspension as well as factory baked enamel finish.','7723','16.24','37.76'),

('S24\_3151','1912 Ford Model T Delivery Wagon','Vintage Cars','1:24','Min Lin Diecast','This model features chrome trim and grille, opening hood, opening doors, opening trunk, detailed engine, working steering system. Color white.','9173','46.91','88.51'),

('S24\_3191','1969 Chevrolet Camaro Z28','Classic Cars','1:24','Exoto Designs','1969 Z/28 Chevy Camaro 1:24 scale replica. The operating parts of this limited edition 1:24 scale diecast model car 1969 Chevy Camaro Z28- hood, trunk, wheels, steering, suspension and doors- are particularly delicate due to their precise scale and require special care and attention.','4695','50.51','85.61'),

('S24\_3371','1971 Alpine Renault 1600s','Classic Cars','1:24','Welly Diecast Productions','This 1971 Alpine Renault 1600s replica Features opening doors, superb detail and craftsmanship, working steering system, opening forward compartment, opening rear trunk with removable spare, 4 wheel independent spring suspension as well as factory baked enamel finish.','7995','38.58','61.23'),

('S24\_3420','1937 Horch 930V Limousine','Vintage Cars','1:24','Autoart Studio Design','Features opening hood, opening doors, opening trunk, wide white wall tires, front door arm rests, working steering system','2902','26.30','65.75'),

('S24\_3432','2002 Chevy Corvette','Classic Cars','1:24','Gearbox Collectibles','The operating parts of this limited edition Diecast 2002 Chevy Corvette 50th Anniversary Pace car Limited Edition are particularly delicate due to their precise scale and require special care and attention. Features rotating wheels, poseable steering, opening doors and trunk.','9446','62.11','107.08'),

('S24\_3816','1940 Ford Delivery Sedan','Vintage Cars','1:24','Carousel DieCast Legends','Chrome Trim, Chrome Grille, Opening Hood, Opening Doors, Opening Trunk, Detailed Engine, Working Steering System. Color black.','6621','48.64','83.86'),

('S24\_3856','1956 Porsche 356A Coupe','Classic Cars','1:18','Classic Metal Creations','Features include: Turnable front wheels; steering function; detailed interior; detailed engine; opening hood; opening trunk; opening doors; and detailed chassis.','6600','98.30','140.43'),

('S24\_3949','Corsair F4U ( Bird Cage)','Planes','1:24','Second Gear Diecast','Has retractable wheels and comes with a stand. Official logos and insignias.','6812','29.34','68.24'),

('S24\_3969','1936 Mercedes Benz 500k Roadster','Vintage Cars','1:24','Red Start Diecast','This model features grille-mounted chrome horn, lift-up louvered hood, fold-down rumble seat, working steering system and rubber wheels. Color black.','2081','21.75','41.03'),

('S24\_4048','1992 Porsche Cayenne Turbo Silver','Classic Cars','1:24','Exoto Designs','This replica features opening doors, superb detail and craftsmanship, working steering system, opening forward compartment, opening rear trunk with removable spare, 4 wheel independent spring suspension as well as factory baked enamel finish.','6582','69.78','118.28'),

('S24\_4258','1936 Chrysler Airflow','Vintage Cars','1:24','Second Gear Diecast','Features opening trunk, working steering system. Color dark green.','4710','57.46','97.39'),

('S24\_4278','1900s Vintage Tri-Plane','Planes','1:24','Unimax Art Galleries','Hand crafted diecast-like metal Triplane is Re-created in about 1:24 scale of antique pioneer airplane. This antique style metal triplane is all hand-assembled with many different parts.','2756','36.23','72.45'),

('S24\_4620','1961 Chevrolet Impala','Classic Cars','1:18','Classic Metal Creations','This 1:18 scale precision die-cast reproduction of the 1961 Chevrolet Impala has all the features-doors, hood and trunk that open; detailed 409 cubic-inch engine; chrome dashboard and stick shift, two-tone interior; working steering system; all topped of with a factory baked-enamel finish.','7869','32.33','80.84'),

('S32\_1268','1980's GM Manhattan Express','Trucks and Buses','1:32','Motor City Art Classics','This 1980's era new look Manhattan express is still active, running from the Bronx to mid-town Manhattan. Has 35 opening windows and working lights. Needs a battery.','5099','53.93','96.31'),

('S32\_1374','1997 BMW F650 ST','Motorcycles','1:32','Exoto Designs','Features official die-struck logos and baked enamel finish. Comes with stand.','178','66.92','99.89'),

('S32\_2206','1982 Ducati 996 R','Motorcycles','1:32','Gearbox Collectibles','Features rotating wheels, working kick stand. Comes with stand.','9241','24.14','40.23'),

('S32\_2509','1954 Greyhound Scenicruiser','Trucks and Buses','1:32','Classic Metal Creations','Model features bi-level seating, 50 windows, skylights & glare resistant glass, working steering system, original logos','2874','25.98','54.11'),

('S32\_3207','1950's Chicago Surface Lines Streetcar','Trains','1:32','Gearbox Collectibles','This streetcar is a joy to see. It has 80 separate windows, electric wire guides, detailed interiors with seats, poles and drivers controls, rolling and turning wheel assemblies, plus authentic factory baked-enamel finishes (Green Hornet for Chicago and Cream and Crimson for Boston).','8601','26.72','62.14'),

('S32\_3522','1996 Peterbilt 379 Stake Bed with Outrigger','Trucks and Buses','1:32','Red Start Diecast','This model features, opening doors, detailed engine, working steering, tinted windows, detailed interior, die-struck logos, removable stakes operating outriggers, detachable second trailer,

functioning 360-degree self loader, precision molded resin trailer and trim, baked enamel finish on cab',814,'33.61','64.64'),

('S32\_4289','1928 Ford Phaeton Deluxe','Vintage Cars','1:32','Highway 66 Mini Classics','This model features grille-mounted chrome horn, lift-up louvered hood, fold-down rumble seat, working steering system',136,'33.02','68.79'),

('S32\_4485','1974 Ducati 350 Mk3 Desmo','Motorcycles','1:32','Second Gear Diecast','This model features two-tone paint with chrome accents, superior die-cast detail , rotating wheels , working kick stand',3341,'56.13','102.05'),

('S50\_1341','1930 Buick Marquette Phaeton','Vintage Cars','1:50','Studio M Art Models','Features opening trunk, working steering system',7062,'27.06','43.64'),

('S50\_1392','Diamond T620 Semi-Skirted Tanker','Trucks and Buses','1:50','Highway 66 Mini Classics','This limited edition model is licensed and perfectly scaled for Lionel Trains. The Diamond T620 has been produced in solid precision diecast and painted with a fire baked enamel finish. It comes with a removable tanker and is a perfect model to add authenticity to your static train or car layout or to just have on display.',1016,'68.29','115.75'),

('S50\_1514','1962 City of Detroit Streetcar','Trains','1:50','Classic Metal Creations','This streetcar is a joy to see. It has 99 separate windows, electric wire guides, detailed interiors with seats, poles and drivers controls, rolling and turning wheel assemblies, plus authentic factory baked-enamel finishes (Green Hornet for Chicago and Cream and Crimson for Boston).',1645,'37.49','58.58'),

('S50\_4713','2002 Yamaha YZR M1','Motorcycles','1:50','Autoart Studio Design','Features rotating wheels , working kick stand. Comes with stand.',600,'34.17','81.36'),

('S700\_1138','The Schooner Bluenose','Ships','1:700','Autoart Studio Design','All wood with canvas sails. Measures 31 1/2 inches in Length, 22 inches High and 4 3/4 inches Wide. Many extras.\r\nThe schooner Bluenose was built in Nova Scotia in 1921 to fish the rough waters off the coast of Newfoundland. Because of the Bluenose racing prowess she became the pride of all Canadians. Still featured on stamps and the Canadian dime, the Bluenose was lost off Haiti in 1946.',1897,'34.00','66.67'),

('S700\_1691','American Airlines: B767-300','Planes','1:700','Min Lin Diecast','Exact replia with official logos and insignias and retractable wheels',5841,'51.15','91.34'),

('S700\_1938','The Mayflower','Ships','1:700','Studio M Art Models','Measures 31 1/2 inches Long x 25 1/2 inches High x 10 5/8 inches Wide\r\nAll wood with canvas sail. Extras include long boats, rigging, ladders, railing, anchors, side cannons, hand painted, etc.',737,'43.30','86.61'),

('S700\_2047','HMS Bounty','Ships','1:700','Unimax Art Galleries','Measures 30 inches Long x 27 1/2 inches High x 4 3/4 inches Wide. \r\nMany extras including rigging, long boats, pilot house, anchors, etc. Comes with three masts, all square-rigged.',3501,'39.83','90.52'),

('S700\_2466','America West Airlines B757-200','Planes','1:700','Motor City Art Classics','Official logos and insignias. Working steering system. Rotating jet engines',9653,'68.80','99.72'),

('S700\_2610','The USS Constitution Ship','Ships','1:700','Red Start Diecast','All wood with canvas sails. Measures 31 1/2\" Length x 22 3/8\" High x 8 1/4\" Width. Extras include 4 boats on deck, sea sprite on bow, anchors, copper railing, pilot houses, etc.',7083,'33.97','72.28'),

('S700\_2824','1982 Camaro Z28','Classic Cars','1:18','Carousel DieCast Legends','Features include opening and closing doors. Color: White. \r\nMeasures approximately 9 1/2\" Long.','6934','46.53','101.15'),

('S700\_2834','ATA: B757-300','Planes','1:700','Highway 66 Mini Classics','Exact replia with official logos and insignias and retractable wheels','7106','59.33','118.65'),

('S700\_3167','F/A 18 Hornet 1/72','Planes','1:72','Motor City Art Classics','10\" Wingspan with retractable landing gears.Comes with pilot','551','54.40','80.00'),

('S700\_3505','The Titanic','Ships','1:700','Carousel DieCast Legends','Completed model measures 19 1/2 inches long, 9 inches high, 3inches wide and is in barn red/black. All wood and metal.','1956','51.09','100.17'),

('S700\_3962','The Queen Mary','Ships','1:700','Welly Diecast Productions','Exact replica. Wood and Metal. Many extras including rigging, long boats, pilot house, anchors, etc. Comes with three masts, all square-rigged.','5088','53.63','99.31'),

('S700\_4002','American Airlines: MD-11S','Planes','1:700','Second Gear Diecast','Polished finish. Exact replia with official logos and insignias and retractable wheels','8820','36.27','74.03'),

('S72\_1253','Boeing X-32A JSF','Planes','1:72','Motor City Art Classics','10\" Wingspan with retractable landing gears.Comes with pilot','4857','32.77','49.66'),

('S72\_3212','Pont Yacht','Ships','1:72','Unimax Art Galleries','Measures 38 inches Long x 33 3/4 inches High. Includes a stand.\r\nMany extras including rigging, long boats, pilot house, anchors, etc. Comes with 2 masts, all square-rigged','414','33.30','54.60');

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(such as posters, pamphlets) be included in the shipment',144),
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(10136,'2003-07-04','2003-07-14','2003-07-06','Shipped','Customer is interested in buying more Ferrari models',242),

(10137,'2003-07-10','2003-07-20','2003-07-14','Shipped',NULL,353),

(10138,'2003-07-07','2003-07-16','2003-07-13','Shipped',NULL,496),

(10139,'2003-07-16','2003-07-23','2003-07-21','Shipped',NULL,282),

(10140,'2003-07-24','2003-08-02','2003-07-30','Shipped',NULL,161),

(10141,'2003-08-01','2003-08-09','2003-08-04','Shipped',NULL,334),

(10142,'2003-08-08','2003-08-16','2003-08-13','Shipped',NULL,124),

(10143,'2003-08-10','2003-08-18','2003-08-12','Shipped','Can we deliver the new Ford Mustang models by end-of-quarter?',320),

(10144,'2003-08-13','2003-08-21','2003-08-14','Shipped',NULL,381),

(10145,'2003-08-25','2003-09-02','2003-08-31','Shipped',NULL,205),

(10146,'2003-09-03','2003-09-13','2003-09-06','Shipped',NULL,447),

(10147,'2003-09-05','2003-09-12','2003-09-09','Shipped',NULL,379),

(10148,'2003-09-11','2003-09-21','2003-09-15','Shipped','They want to reevaluate their terms agreement with Finance.',276),

(10149,'2003-09-12','2003-09-18','2003-09-17','Shipped',NULL,487),

(10150,'2003-09-19','2003-09-27','2003-09-21','Shipped','They want to reevaluate their terms agreement with Finance.',148),

(10151,'2003-09-21','2003-09-30','2003-09-24','Shipped',NULL,311),

(10152,'2003-09-25','2003-10-03','2003-10-01','Shipped',NULL,333),

(10153,'2003-09-28','2003-10-05','2003-10-03','Shipped',NULL,141),

(10154,'2003-10-02','2003-10-12','2003-10-08','Shipped',NULL,219),

(10155,'2003-10-06','2003-10-13','2003-10-07','Shipped',NULL,186),

(10156,'2003-10-08','2003-10-17','2003-10-11','Shipped',NULL,141),

(10157,'2003-10-09','2003-10-15','2003-10-14','Shipped',NULL,473),

(10158,'2003-10-10','2003-10-18','2003-10-15','Shipped',NULL,121),

(10159,'2003-10-10','2003-10-19','2003-10-16','Shipped',NULL,321),

(10160,'2003-10-11','2003-10-17','2003-10-17','Shipped',NULL,347),

(10161,'2003-10-17','2003-10-25','2003-10-20','Shipped',NULL,227),

(10162,'2003-10-18','2003-10-26','2003-10-19','Shipped',NULL,321),

(10163,'2003-10-20','2003-10-27','2003-10-24','Shipped',NULL,424),

(10164,'2003-10-21','2003-10-30','2003-10-23','Resolved','This order was disputed, but resolved on 11/1/2003; Customer doesn\'t like the colors and precision of the models.',452),

(10165,'2003-10-22','2003-10-31','2003-12-26','Shipped','This order was on hold because customers\'s credit limit had been exceeded. Order will ship when payment is received',148),

(10166,'2003-10-21','2003-10-30','2003-10-27','Shipped',NULL,462),

(10167,'2003-10-23','2003-10-30',NULL,'Cancelled','Customer called to cancel. The warehouse was notified in time and the order didn\'t ship. They have a new VP of Sales and are shifting their sales model. Our VP of Sales should contact them.',448),

(10168,'2003-10-28','2003-11-03','2003-11-01','Shipped',NULL,161),

(10169,'2003-11-04','2003-11-14','2003-11-09','Shipped',NULL,276),

(10170,'2003-11-04','2003-11-12','2003-11-07','Shipped',NULL,452),

(10171,'2003-11-05','2003-11-13','2003-11-07','Shipped',NULL,233),

(10172,'2003-11-05','2003-11-14','2003-11-11','Shipped',NULL,175),

(10173,'2003-11-05','2003-11-15','2003-11-09','Shipped','Cautious optimism. We have happy customers here, if we can keep them well stocked. I need all the information I can get on the planned shippments of Porches',278),

(10174,'2003-11-06','2003-11-15','2003-11-10','Shipped',NULL,333),

(10175,'2003-11-06','2003-11-14','2003-11-09','Shipped',NULL,324),

(10176,'2003-11-06','2003-11-15','2003-11-12','Shipped',NULL,386),  
(10177,'2003-11-07','2003-11-17','2003-11-12','Shipped',NULL,344),  
(10178,'2003-11-08','2003-11-16','2003-11-10','Shipped','Custom shipping instructions sent to warehouse',242),  
(10179,'2003-11-11','2003-11-17','2003-11-13','Cancelled','Customer cancelled due to urgent budgeting issues. Must be cautious when dealing with them in the future. Since order shipped already we must discuss who would cover the shipping charges.',496),  
(10180,'2003-11-11','2003-11-19','2003-11-14','Shipped',NULL,171),  
(10181,'2003-11-12','2003-11-19','2003-11-15','Shipped',NULL,167),  
(10182,'2003-11-12','2003-11-21','2003-11-18','Shipped',NULL,124),  
(10183,'2003-11-13','2003-11-22','2003-11-15','Shipped','We need to keep in close contact with their Marketing VP. He is the decision maker for all their purchases.',339),  
(10184,'2003-11-14','2003-11-22','2003-11-20','Shipped',NULL,484),  
(10185,'2003-11-14','2003-11-21','2003-11-20','Shipped',NULL,320),  
(10186,'2003-11-14','2003-11-20','2003-11-18','Shipped','They want to reevaluate their terms agreement with the VP of Sales',489),  
(10187,'2003-11-15','2003-11-24','2003-11-16','Shipped',NULL,211),  
(10188,'2003-11-18','2003-11-26','2003-11-24','Shipped',NULL,167),  
(10189,'2003-11-18','2003-11-25','2003-11-24','Shipped','They want to reevaluate their terms agreement with Finance.',205),  
(10190,'2003-11-19','2003-11-29','2003-11-20','Shipped',NULL,141),  
(10191,'2003-11-20','2003-11-30','2003-11-24','Shipped','We must be cautious with this customer. Their VP of Sales resigned. Company may be heading down.',259),  
(10192,'2003-11-20','2003-11-29','2003-11-25','Shipped',NULL,363),  
(10193,'2003-11-21','2003-11-28','2003-11-27','Shipped',NULL,471),  
(10194,'2003-11-25','2003-12-02','2003-11-26','Shipped',NULL,146),  
(10195,'2003-11-25','2003-12-01','2003-11-28','Shipped',NULL,319),  
(10196,'2003-11-26','2003-12-03','2003-12-01','Shipped',NULL,455),  
(10197,'2003-11-26','2003-12-02','2003-12-01','Shipped','Customer inquired about remote controlled models and gold models.',216),  
(10198,'2003-11-27','2003-12-06','2003-12-03','Shipped',NULL,385),  
(10199,'2003-12-01','2003-12-10','2003-12-06','Shipped',NULL,475),  
(10200,'2003-12-01','2003-12-09','2003-12-06','Shipped',NULL,211),  
(10201,'2003-12-01','2003-12-11','2003-12-02','Shipped',NULL,129),

```

(10202,'2003-12-02','2003-12-09','2003-12-06','Shipped',NULL,357),
(10203,'2003-12-02','2003-12-11','2003-12-07','Shipped',NULL,141),
(10204,'2003-12-02','2003-12-10','2003-12-04','Shipped',NULL,151),
(10205,'2003-12-03','2003-12-09','2003-12-07','Shipped','I need all the information I can get on our
competitors.',141),
(10206,'2003-12-05','2003-12-13','2003-12-08','Shipped','Can we renegotiate this one?',202),
(10207,'2003-12-09','2003-12-17','2003-12-11','Shipped','Check on availability.',495),
(10208,'2004-01-02','2004-01-11','2004-01-04','Shipped',NULL,146),
(10209,'2004-01-09','2004-01-15','2004-01-12','Shipped',NULL,347),
(10210,'2004-01-12','2004-01-22','2004-01-20','Shipped',NULL,177),
(10211,'2004-01-15','2004-01-25','2004-01-18','Shipped',NULL,406),
(10212,'2004-01-16','2004-01-24','2004-01-18','Shipped',NULL,141),

(10421,'2005-05-29','2005-06-06',NULL,'In Process','Custom shipping instructions were sent to
warehouse',124),
(10422,'2005-05-30','2005-06-11',NULL,'In Process',NULL,157),
(10423,'2005-05-30','2005-06-05',NULL,'In Process',NULL,314),
(10424,'2005-05-31','2005-06-08',NULL,'In Process',NULL,141),
(10425,'2005-05-31','2005-06-07',NULL,'In Process',NULL,119);

```

```

SELECT * FROM orders;

```

```

INSERT INTO
`orderdetails`(`orderNumber`,`productCode`,`quantityOrdered`,`priceEach`,`orderLineNumber`)
VALUES

(10100,'S18_1749',30,'136.00',3),
(10100,'S18_2248',50,'55.09',2),
(10100,'S18_4409',22,'75.46',4),
(10100,'S24_3969',49,'35.29',1),
(10101,'S18_2325',25,'108.06',4),
(10101,'S18_2795',26,'167.06',1),
(10101,'S24_1937',45,'32.53',3),

```

(10101,'S24\_2022',46,'44.35',2),  
(10102,'S18\_1342',39,'95.55',2),  
(10102,'S18\_1367',41,'43.13',1),  
(10103,'S10\_1949',26,'214.30',11),  
(10103,'S10\_4962',42,'119.67',4),  
(10103,'S12\_1666',27,'121.64',8),  
(10103,'S18\_1097',35,'94.50',10),  
(10103,'S18\_2432',22,'58.34',2),  
(10103,'S18\_2949',27,'92.19',12),  
(10103,'S18\_2957',35,'61.84',14),  
(10103,'S18\_3136',25,'86.92',13),  
(10103,'S18\_3320',46,'86.31',16),  
(10103,'S18\_4600',36,'98.07',5),  
(10103,'S18\_4668',41,'40.75',9),  
(10103,'S24\_2300',36,'107.34',1),  
(10103,'S24\_4258',25,'88.62',15),  
(10103,'S32\_1268',31,'92.46',3),  
(10103,'S32\_3522',45,'63.35',7),  
(10103,'S700\_2824',42,'94.07',6),  
(10104,'S12\_3148',34,'131.44',1),  
(10104,'S12\_4473',41,'111.39',9),  
(10104,'S18\_2238',24,'135.90',8),  
(10104,'S18\_2319',29,'122.73',12),  
(10104,'S18\_3232',23,'165.95',13),  
(10398,'S50\_1341',49,'38.84',5),  
(10398,'S700\_1691',47,'78.55',6),  
(10398,'S700\_2047',36,'75.13',7),  
(10398,'S700\_2466',22,'98.72',8),  
(10398,'S700\_2834',23,'102.04',9),  
(10398,'S700\_3167',29,'76.80',10),  
(10398,'S700\_4002',36,'62.19',12),

(10398,'S72\_1253',34,'41.22',1),  
(10399,'S10\_1678',40,'77.52',8),  
(10399,'S10\_2016',51,'99.91',7),  
(10399,'S10\_4698',22,'156.86',6),  
(10399,'S12\_2823',29,'123.51',5),  
(10399,'S18\_2625',30,'51.48',4),  
(10399,'S24\_1578',57,'104.81',3),  
(10399,'S24\_2000',58,'75.41',2),  
(10399,'S32\_1374',32,'97.89',1),  
(10400,'S10\_4757',64,'134.64',9),  
(10400,'S18\_1662',34,'129.31',1),  
(10400,'S18\_3029',30,'74.84',7),  
(10400,'S18\_3856',58,'88.93',6),  
(10400,'S24\_2841',24,'55.49',2),  
(10400,'S24\_3420',38,'59.18',3),  
(10400,'S24\_3816',42,'74.64',8),  
(10400,'S700\_2047',46,'82.37',5),  
(10400,'S72\_1253',20,'41.71',4),  
(10404,'S24\_4620',48,'65.48',7),  
(10405,'S12\_4675',97,'115.16',5),  
(10405,'S18\_1889',61,'72.38',4),  
(10405,'S18\_3232',55,'147.33',1),  
(10405,'S24\_2972',47,'37.38',2),  
(10405,'S24\_3856',76,'127.79',3),  
(10406,'S18\_1129',61,'124.56',3),  
(10406,'S18\_1984',48,'133.72',2),  
(10406,'S18\_3685',65,'117.26',1),  
(10407,'S18\_1589',59,'114.48',11),  
(10407,'S18\_1749',76,'141.10',2),  
(10407,'S18\_2248',42,'58.12',1),  
(10407,'S18\_2870',41,'132.00',12),

(10407,'S18\_4409',6,'91.11',3),  
(10407,'S18\_4933',66,'64.14',4),  
(10407,'S24\_1046',26,'68.35',8),  
(10407,'S24\_1628',64,'45.78',10),  
(10407,'S24\_2766',76,'81.78',6),  
(10407,'S24\_2887',59,'98.65',5),  
(10407,'S24\_3191',13,'77.05',7),  
(10407,'S24\_3432',43,'101.73',9),  
(10408,'S24\_3969',15,'41.03',1),  
(10409,'S18\_2325',6,'104.25',2),  
(10409,'S24\_1937',61,'27.88',1),  
(10410,'S18\_1342',65,'99.66',7),  
(10410,'S18\_1367',44,'51.21',6),  
(10410,'S18\_2795',56,'145.13',8),  
(10410,'S18\_2949',47,'93.21',1),  
(10410,'S18\_2957',53,'49.97',3),  
(10410,'S18\_3136',34,'84.82',2),  
(10410,'S18\_3320',44,'81.35',5),  
(10410,'S24\_2022',31,'42.56',9),  
(10410,'S24\_4258',50,'95.44',4),  
(10411,'S10\_1949',23,'205.73',9),  
(10411,'S10\_4962',27,'144.79',2),  
(10411,'S12\_1666',40,'110.70',6),  
(10411,'S18\_1097',27,'109.67',8),  
(10411,'S18\_4600',46,'106.55',3),  
(10411,'S18\_4668',35,'41.25',7),  
(10411,'S32\_1268',26,'78.01',1),  
(10411,'S32\_3522',27,'60.76',5),  
(10411,'S700\_2824',34,'89.01',4),  
(10412,'S12\_4473',54,'100.73',5),  
(10412,'S18\_2238',41,'150.63',4),



(10412,'S18\_2319',56,'120.28',8),  
(10412,'S18\_2432',47,'49.83',11),  
(10412,'S18\_3232',60,'157.49',9),  
(10412,'S24\_1444',21,'47.40',2),  
(10412,'S24\_2300',70,'109.90',10),  
(10412,'S24\_2840',30,'32.88',6),  
(10412,'S24\_4048',31,'108.82',1),  
(10412,'S32\_2509',19,'50.86',7),  
(10412,'S50\_1392',26,'105.33',3),  
(10413,'S12\_1108',36,'201.57',2),  
(10413,'S12\_3148',47,'145.04',3),  
(10413,'S12\_3891',22,'173.02',1),  
(10413,'S18\_4027',49,'133.57',5),  
(10413,'S32\_3207',24,'56.55',6),  
(10413,'S50\_1514',51,'53.31',4),  
(10414,'S10\_4757',49,'114.24',3),  
(10414,'S18\_3029',44,'77.42',1),  
(10414,'S18\_3140',41,'128.39',12),  
(10414,'S18\_3259',48,'85.71',14),  
(10414,'S18\_4522',56,'83.38',11),  
(10414,'S24\_2011',43,'108.14',10),  
(10414,'S24\_3151',60,'72.58',5),  
(10414,'S24\_3816',51,'72.96',2),  
(10414,'S700\_1138',37,'62.00',6),  
(10414,'S700\_1938',34,'74.48',13),  
(10414,'S700\_2610',31,'61.44',4),  
(10414,'S700\_3505',28,'84.14',7),  
(10414,'S700\_3962',40,'84.41',8),  
(10414,'S72\_3212',47,'54.60',9),  
(10415,'S18\_3856',51,'86.81',5),  
(10415,'S24\_2841',21,'60.97',1),

(10415,'S24\_3420',18,'59.83',2),  
(10415,'S700\_2047',32,'73.32',4),  
(10415,'S72\_1253',42,'43.20',3),  
(10416,'S18\_1662',24,'129.31',14),  
(10416,'S18\_2581',15,'70.96',4),  
(10416,'S24\_1785',47,'90.82',6),  
(10416,'S24\_2000',32,'62.46',1),  
(10416,'S24\_3949',18,'64.83',13),  
(10416,'S24\_4278',48,'70.28',5),  
(10416,'S32\_1374',45,'86.90',2),  
(10416,'S32\_4289',26,'68.10',7),  
(10416,'S50\_1341',37,'39.71',8),  
(10416,'S700\_1691',23,'88.60',9),  
(10416,'S700\_2466',22,'84.76',11),  
(10416,'S700\_2834',41,'98.48',3),  
(10416,'S700\_3167',39,'65.60',10),  
(10416,'S700\_4002',43,'63.67',12),  
(10417,'S10\_1678',66,'79.43',2),  
  
(10425,'S24\_2300',49,'127.79',9),  
(10425,'S24\_2840',31,'31.82',5),  
(10425,'S32\_1268',41,'83.79',11),  
(10425,'S32\_2509',11,'50.32',6),  
(10425,'S50\_1392',18,'94.92',2);

SELECT \* FROM orderdetails;

/\*=====

## Section 6: Handling & Manipulating Data

Querying, Sorting , Filtering and Grouping Data

=====\*/

**/\*\*\*\*\* 6.1. Querying data \*\*\*\*\*/**

SELECT \* FROM employees; -- SELECT \*: all columns and all rows

SELECT jobTitle FROM employees;

SELECT employeeNumber, jobTitle FROM employees;

SELECT

employeeNumber as EmpNo,

CONCAT(firstName, ' ', lastname) as FullName, -- CONCAT() function & column Alias

jobTitle as Designation

FROM employees;

**/\*\*\*\*\* 6.2. ORDER BY \*\*\*\*\*/**

```
SELECT contactFirstName, contactLastName  
FROM Customers  
ORDER BY contactFirstName; -- in ascending order by default
```

```
SELECT contactFirstName, contactLastName  
FROM Customers  
ORDER BY contactFirstName DESC;
```

```
SELECT * FROM Customers  
ORDER BY creditlimit DESC;
```

```
SELECT * FROM Customers ORDER BY country ASC, city DESC;  
SELECT * FROM Customers ORDER BY country, city;
```

/\*\*\*\*\* 6.3. Filtering data \*\*\*\*\*/

```
SELECT lastname, firstname, jobtitle  
FROM employees  
WHERE jobtitle = 'Sales Rep';
```

```
-- DISTINCT operator in the SELECT  
SELECT DISTINCT jobtitle FROM employees;
```

```
-- Using multiple conditions using AND operator  
SELECT lastname,firstname,jobtitle,officeCode  
FROM employees  
WHERE jobtitle = 'Sales Rep' AND officeCode = 1;
```

```
-- Using multiple conditions using OR operator  
SELECT lastName, firstName, jobTitle, officeCode
```

```
FROM employees
WHERE jobtitle = 'Sales Rep' OR officeCode = 1
ORDER BY officeCode , jobTitle;
```

```
-- Using WHERE clause with the BETWEEN operator
SELECT firstName,lastName,officeCode
FROM employees
WHERE officeCode BETWEEN 1 AND 3 -- BETWEEN low AND high
ORDER BY officeCode;
```

```
SELECT * FROM Customers WHERE Creditlimit BETWEEN 100000 AND 125000;
SELECT * FROM Customers WHERE city = 'San Francisco';
```

```
-- Using WHERE clause with the LIKE & NOT LIKE operators
-- Helps to work with strings and patterns
SELECT firstName,lastName
FROM employees
WHERE lastName LIKE '%son'; -- ending with "son"
```

```
SELECT firstName,lastName
FROM employees
WHERE firstName LIKE 'L%'; -- staring with L
```

```
SELECT firstName,lastName
FROM employees
WHERE firstName LIKE 'L%' OR firstName LIKE '%i'; -- staring with L OR ending with i
```

```
-- Get the number of rows in a table
SELECT COUNT(*) FROM customers;
SELECT COUNT(*) FROM employees WHERE firstName LIKE 'L%';
```

```
SELECT COUNT(*) FROM Customers WHERE Creditlimit BETWEEN 100000 AND 125000;
```

```
SELECT firstName,lastName
```

```
FROM employees
```

```
WHERE firstName LIKE '%on%' OR lastName LIKE '%at%'; -- these string patterns can occur in any  
position in the firstname and lastname
```

```
SELECT *
```

```
FROM employees
```

```
WHERE jobTitle LIKE '%VP%';
```

```
SELECT *
```

```
FROM employees
```

```
WHERE jobTitle NOT LIKE '%Rep%'; -- NOT LIKE OPERATOR
```

```
-- WHERE clause with the IN & NOT IN operators
```

```
SELECT firstName,lastName,officeCode
```

```
FROM employees
```

```
WHERE officeCode IN (2, 3, 5)
```

```
ORDER BY officeCode;
```

```
SELECT firstName,lastName,officeCode
```

```
FROM employees
```

```
WHERE officeCode NOT IN (2, 3, 5)
```

```
ORDER BY officeCode;
```

```
SELECT *
```

```
FROM employees
```

```
WHERE jobTitle IN ('VP Sales', 'VP Marketing');
```

```
SELECT *
```

```
FROM employees
WHERE jobTitle NOT IN ('Sales Rep');
```

```
SELECT *
FROM employees
WHERE jobTitle IN ('VP Sales', 'VP Marketing');
```

```
SELECT *
FROM employees
WHERE jobTitle <> 'Sales Rep';
```

-- Using WHERE clause with the IS NULL and IS NOT NULL operators

```
SELECT *
FROM employees
WHERE reportsTo IS NULL;
```

```
SELECT * FROM customers WHERE salesRepEmployeeNumber IS NULL;
```

```
SELECT * FROM customers WHERE addressLine2 IS NOT NULL AND state IS NOT NULL;
```

```
SELECT * FROM customers WHERE state IS NULL;
```

```
SELECT COUNT(*) FROM customers WHERE state IS NULL;
```

-- Using WHERE clause with comparison operators

/\*

= Equal to. You can use it with almost any data type.

<> or != Not equal to

< Less than. You typically use it with numeric and date/time data types.

> Greater than.

<=                      Less than or equal to  
>=                      Greater than or equal to  
\*/

```
SELECT * FROM customers WHERE creditLimit > 200000;
```

```
SELECT * FROM customers WHERE city = 'Brisbane';
```

```
SELECT * FROM orders WHERE orderDate >= '2003-10-22' AND orderDate <= '2003-11-05';
```

```
SELECT * FROM orders WHERE status <> 'Shipped';
```

```
-- *****MySQL LIMIT clause*****
```

```
SELECT * FROM orders LIMIT 5; -- first 5 rows
```

```
SELECT * FROM orders ORDER BY orderNumber DESC LIMIT 5; -- bottom 5 records
```

```
-- Top 5 Customers with high Credit limit
```

```
SELECT * FROM customers ORDER BY creditLimit DESC LIMIT 5;
```

```
-- TOP 6-10 customers with Creditlimit i.e. from the TOP 10 customers we need second half or  
bottom 5 customers
```

```
SELECT * FROM customers ORDER BY creditLimit DESC LIMIT 5,5; -- this will fetch 5+5 = 10 rows and  
get the bottom 5 rows.
```

```
SELECT * FROM customers ORDER BY creditLimit DESC LIMIT 5,2; -- this will fetch 5+2 = 7 rows and  
get the bottom 2 rows.
```

```
SELECT * FROM customers ORDER BY creditLimit DESC LIMIT 7;
```

```
-- Using LIMIT to get the nth highest or lowest value
```

```
-- Customer with highest creditlimit
```

```
SELECT * FROM customers ORDER BY creditLimit DESC LIMIT 1;
```



-- Customer with second-highest creditlimit

```
SELECT * FROM customers ORDER BY creditLimit DESC LIMIT 1,1;
```

-- Customer with second and third highest creditlimit

```
SELECT * FROM customers ORDER BY creditLimit DESC LIMIT 1,2;
```

-- Customer with fourth highest creditlimit

```
SELECT * FROM customers ORDER BY creditLimit DESC LIMIT 3,1;
```

-- Customer with least credit limit

```
SELECT * FROM customers WHERE creditLimit <> 0
```

```
ORDER BY creditLimit ASC LIMIT 1;
```

```
SELECT * FROM customers WHERE creditLimit <> 0
```

```
ORDER BY creditLimit ASC LIMIT 1,1;
```

#### **/\*\*\*\*\* 6.4. Grouping data using GROUP BY \*\*\*\*\*/**

```
SELECT DISTINCT status FROM orders;
```

-- GROUP BY

```
SELECT status FROM orders GROUP BY status; -- Simple GROUP BY similar to DISTINCT.
```

-- total records in orders table

```
SELECT COUNT(*) FROM orders; -- 327
```

-- GROUP BY with aggregate functions (count, sum, avg etc.,)

-- Breakdown of row count by status

```
SELECT status, COUNT(*) FROM orders GROUP BY status;
```

```
SELECT * FROM orderdetails;
```

```
-- Total quantity ordered for each product
```

```
SELECT od.productCode, SUM(od.quantityOrdered) as TotalQty
```

```
FROM orderdetails od -- Using Alias name for table
```

```
GROUP BY od.productCode
```

```
ORDER BY TotalQty DESC;
```

```
-- GROUP BY Multiple columns
```

```
SELECT od.productCode, od.orderLineNumber, SUM(od.quantityOrdered) as TotalQty
```

```
FROM orderdetails od -- Using Alias name for table
```

```
GROUP BY od.productCode, od.orderLineNumber
```

```
ORDER BY TotalQty DESC;
```

```
-- HAVING: HAVING clause evaluates each group returned by the GROUP BY clause.
```

```
-- Total quantity ordered for each product greater than 1000
```

```
SELECT od.productCode, SUM(od.quantityOrdered) as TotalQty
```

```
FROM orderdetails od -- Using Alias name for table
```

```
GROUP BY od.productCode
```

```
HAVING TotalQty > 1000
```

```
ORDER BY TotalQty DESC;
```

```
SELECT
```

```
    ordernumber,
```

```
    SUM(quantityOrdered) AS itemCount,
```

```
    SUM(priceeach*quantityOrdered) AS total
```

```
FROM orderdetails
```

```
GROUP BY ordernumber
```

```
HAVING total > 50000 AND itemCount > 600
```

```
ORDER BY total DESC;
```

```
-- ROLLUP
```

```
SELECT od.productCode, SUM(od.quantityOrdered) as TotalQty
```

```
FROM orderdetails od
```

```
WHERE priceEach > 100
```

```
GROUP BY od.productCode WITH ROLLUP;
```

```
SELECT * FROM payments;
```

```
SELECT customerNumber, YEAR(paymentDate) as paymentyear, amount FROM payments;
```

```
-- GROUP BY multiple columns WITH ROLLUP
```

```
SELECT
```

```
    customerNumber,
```

```
    YEAR(paymentDate) as paymentyear,
```

```
    SUM(amount) as amountpaid
```

```
FROM payments
```

```
GROUP BY customerNumber,paymentyear WITH ROLLUP; -- Adds Subtotal and Grand total
```

```
SELECT
```

```
    YEAR(paymentDate) as paymentyear,
```

```
    customerNumber,
```

```
    SUM(amount) as amountpaid
```

```
FROM payments
```

```
GROUP BY paymentyear,customerNumber WITH ROLLUP;
```

```
/*****
```

## Order of execution in SQL

\*\*\*\*\*/

/\*=====

## Section 7: Set operators

UNION and UNION ALL

=====\*/

-- Difference between UNION and UNION ALL

SELECT DISTINCT country from offices

UNION

SELECT DISTINCT country from offices;

SELECT DISTINCT country from offices

UNION ALL

SELECT DISTINCT country from offices;

SELECT DISTINCT city,country from offices -- Error due differnet number of columns

UNION ALL

SELECT DISTINCT country from offices;

SELECT DISTINCT city,country from offices

UNION

SELECT DISTINCT city,country from offices;

```
/*=====
```

## Section 8: JOINS in SQL

```
=====*/
```

```
-- =====8.1 MySQL alias for columns & tables=====
```

```
-- alias for columns
```

```
SELECT
```

```
    CONCAT(lastName, ', ', firstName) AS `Full name`
```

```
FROM
```

```
    employees;
```

```
SELECT
```

```
    orderNumber as Order_No,
```

```
    SUM(priceEach * quantityOrdered) as `total`
```

```
FROM
```

```
    orderDetails
```

```
GROUP BY
```

```
    Order_No
```

```
HAVING total > 60000;
```

-- alias for tables

SELECT

    e.firstName,

    e.lastName

FROM

    employees e

ORDER BY e.firstName;

-- ===== JOINS =====

/\*MySQL supports the following types of joins:

Inner join

Left join

Right join

Cross join

Self join\*/

-- =====8.2 Inner Join=====

SELECT \* FROM customers;

SELECT COUNT(\*) FROM customers; -- 122

SELECT \* FROM orders;

SELECT COUNT(\*) FROM orders; -- 327

SELECT COUNT(DISTINCT customerNumber) FROM orders; -- 98

SELECT customerNumber, COUNT(ordernumber) as Order\_Count

```
FROM orders
```

```
GROUP BY customerNumber
```

```
ORDER BY Order_Count DESC;
```

```
-- Inner join
```

```
SELECT
```

```
    c.customerNumber, c.customerName,
```

```
    o.orderNumber, o.orderDate,o.status, o.customerNumber as orders_customerNumber
```

```
FROM customers c
```

```
INNER JOIN orders o
```

```
ON c.customerNumber = o.customerNumber
```

```
ORDER BY c.customerNumber;
```

```
SELECT * FROM customers WHERE customerNumber = 103;
```

```
SELECT * FROM orders WHERE customerNumber = 103;
```

```
SELECT
```

```
    COUNT(*)
```

```
FROM customers c
```

```
INNER JOIN orders o
```

```
ON c.customerNumber = o.customerNumber; -- 327
```

```
-- =====8.3 LEFT Join=====
```

```
SELECT
```

```
    c.customerNumber, c.customerName,
```

```
    o.orderNumber, o.orderDate,o.status, o.customerNumber as orders_customerNumber
```

```
FROM customers c
```

```
LEFT JOIN orders o
```

```
ON c.customerNumber = o.customerNumber
```

```
ORDER BY c.customerNumber;
```

```
SELECT
```

```
    COUNT(*)
```

```
FROM customers c
```

```
LEFT JOIN orders o
```

```
ON c.customerNumber = o.customerNumber; -- 351
```

```
SELECT
```

```
    COUNT(*)
```

```
FROM customers c
```

```
LEFT JOIN orders o
```

```
ON c.customerNumber = o.customerNumber
```

```
WHERE o.customerNumber IS NULL; -- 24 extra rows in LEFT JOIN
```

```
SELECT
```

```
    COUNT(*)
```

```
FROM customers c
```

```
LEFT JOIN orders o
```

```
ON c.customerNumber = o.customerNumber
```

```
WHERE o.customerNumber IS NOT NULL; -- 327
```

```
-- =====8.4 RIGHT Join=====
```

```
SELECT
```

```
    c.customerNumber, c.customerName,
```

```
    o.orderNumber, o.orderDate, o.status, o.customerNumber as orders_customerNumber
```

```
FROM orders o
```



RIGHT JOIN customers c -- changed the order of the tables; now this output is same as the previous  
LEFT JOIN output

ON c.customerNumber = o.customerNumber

ORDER BY c.customerNumber;

-- =====8.5 Cross Join=====

SELECT DISTINCT city from offices;

SELECT COUNT(\*) city from offices;

-- No need of matching column condition

SELECT o1.city, o2.city FROM offices o1

CROSS JOIN offices o2;

SELECT COUNT(\*) FROM offices o1

CROSS JOIN offices o2;

-- Cross Join with WHERE

-- behaves like INNER JOIN

SELECT o1.city, o2.city FROM offices o1

CROSS JOIN offices o2

WHERE o1.city = o2.city;

-- =====8.6 Self Join=====

SELECT \* FROM employees;

-- Display the employee name and manager name

-- Self join using INNER JOIN clause

SELECT

concat(e1.firstname, ' ', e1.lastname) as EmployeeName,

```

        concat(e2.firstname, ' ', e2.lastname) as ManagerName
FROM employees e1
INNER JOIN employees e2 ON e2.employeeNumber = e1.reportsTo;

-- Self join using LEFT JOIN clause
SELECT
        concat(e1.firstname, ' ', e1.lastname) as EmployeeName,
        concat(e2.firstname, ' ', e2.lastname) as ManagerName
FROM employees e1
LEFT JOIN employees e2 ON e2.employeeNumber = e1.reportsTo;

```

```

/*=====

```

## Section 9: Subqueries

```

=====*/

```

```

SELECT * FROM employees;
SELECT * FROM offices;

-- One approach using JOINS
SELECT *
FROM employees e
INNER JOIN offices o ON e.officeCode = o.officeCode
WHERE o.country = 'USA';

-- Using sub-query
SELECT *

```

```
FROM employees
```

```
WHERE officeCode IN (SELECT officeCode FROM offices WHERE country = 'USA');
```

```
SELECT officeCode FROM offices WHERE country = 'USA';
```

```
-- the above query is nothing but -
```

```
SELECT *
```

```
FROM employees
```

```
WHERE officeCode IN (1,2,3);
```

```
SELECT
```

```
    customerNumber,
```

```
    checkNumber,
```

```
    amount
```

```
FROM payments
```

```
WHERE amount > (SELECT AVG(amount) FROM payments);
```

```
SELECT *
```

```
FROM customers
```

```
WHERE customerNumber NOT IN (SELECT DISTINCT customerNumber FROM orders);
```

```
-- =====Derived Tables=====
```

```
-- A derived table is a virtual table returned from a SELECT statement.
```

```
-- get the top five products by sales revenue in 2003 from the orders and orderdetails tables
```

```
SELECT
```

```
    productCode,
```

```
    productName,
```

```

SUM(quantityOrdered * priceEach) as revenue
FROM orderdetails
INNER JOIN orders USING (orderNumber) -- USING keyword in JOINS. use this option when the two
tables have the same column name.
INNER JOIN products USING (productCode) -- multiple tables JOINED
WHERE YEAR(shippedDate) = 2003
GROUP BY productCode
ORDER BY revenue DESC
LIMIT 5;

```

-- Using a derived table

```

SELECT top5.productCode, p.productName, top5.revenue FROM
    (
        SELECT
            productCode,
            SUM(quantityOrdered * priceEach) as revenue
            FROM orderdetails
            INNER JOIN orders USING (orderNumber)
            WHERE YEAR(shippedDate) = 2003
            GROUP BY productCode
            ORDER BY revenue DESC
            LIMIT 5
        ) as top5
INNER JOIN products p ON p.productCode = top5.productCode;

```

/\*=====

## Section 10: Temporary tables & CTEs

```
=====*/
```

```
/*
```

```
*****MySQL temporary tables*****
```

- A temporary table is created by using CREATE TEMPORARY TABLE statement.

Notice that the keyword TEMPORARY is added between the CREATE and TABLE keywords.

- MySQL removes the temporary table automatically when the session ends or the connection is terminated.

Of course, you can use the DROP TABLE statement to remove a temporary table explicitly when you are no longer use it.

```
*/
```

```
CREATE TEMPORARY TABLE `products_planes` (
```

```
`productCode` varchar(15) NOT NULL,
```

```
`productName` varchar(70) NOT NULL,
```

```
`productLine` varchar(50) NOT NULL,
```

```
`productScale` varchar(10) NOT NULL,
```

```
`productVendor` varchar(50) NOT NULL,
```

```
`productDescription` text NOT NULL,
```

```
`quantityInStock` smallint NOT NULL,
```

```
`buyPrice` decimal(10,2) NOT NULL,
```

```
`MSRP` decimal(10,2) NOT NULL,
```

```
PRIMARY KEY (`productCode`)
```

```
);
```

```
INSERT INTO products_planes
```

```
SELECT * FROM products WHERE productline = 'Planes';
```

```
SELECT * FROM products_planes;
```

```
-- DROP TEMPORARY TABLE products_planes;
```

```
-- *****Common Table Expression or CTE*****
```

```
-- A common table expression is a named temporary result set that exists only within the execution scope of a single SQL statement e.g.,SELECT, INSERT, UPDATE, or DELETE.
```

```
-- Similar to a derived table, a CTE is not stored as an object and last only during the execution of a query.
```

```
/*
```

```
SYNTAX
```

```
-----
```

```
WITH cte_name (column_list) AS (
```

```
    query
```

```
)
```

```
SELECT * FROM cte_name;
```

```
*/
```

```
;WITH cte1 AS
```

```
(
```

```
    SELECT
```

```
    productCode,
```

```
    SUM(quantityOrdered * priceEach) as revenue
```

```
    FROM orderdetails
```

```
    INNER JOIN orders USING (orderNumber)
```

```
    WHERE YEAR(shippedDate) = 2003
```

```
    GROUP BY productCode
```

```
    ORDER BY revenue DESC
```

```
    LIMIT 5
```

```
)
```

```
SELECT cte1.productCode, p.productName, cte1.revenue FROM cte1
```

```
INNER JOIN products p ON p.productCode = cte1.productCode;
```

-- NESTED CTE

WITH salesrep AS (

SELECT employeeNumber,

CONCAT(firstName, ' ', lastName) AS salesrepName

FROM employees

WHERE jobTitle = 'Sales Rep'

),

customer\_salesrep AS (

SELECT customerName, salesrepName

FROM customers c

INNER JOIN salesrep sr ON sr.employeeNumber = c.salesrepEmployeeNumber

)

SELECT \*

FROM customer\_salesrep

ORDER BY customerName;

```
/*=====
```

## Section 8: JOINS in SQL

```
=====*/
```

```
-- =====8.1 MySQL alias for columns & tables=====
```

```
-- alias for columns
```

```
SELECT
```

```
    CONCAT(lastName, ' ', firstName) AS `Full name`
```

```
FROM
```

```
    employees;
```

```
SELECT
```

```
    orderNumber as Order_No,
```

```
    SUM(priceEach * quantityOrdered) as `total`
```

```
FROM
```

```
    orderDetails
```

```
GROUP BY
```



```
        Order_No
HAVING total > 60000;
```

```
-- alias for tables

SELECT
    e.firstName,
    e.lastName
FROM
    employees e
ORDER BY e.firstName;
```

```
-- ===== JOINS =====
```

```
/*MySQL supports the following types of joins:
```

```
Inner join
```

```
Left join
```

```
Right join
```

```
Cross join
```

```
Self join*/
```

```
-- =====8.2 Inner Join=====
```

```
SELECT * FROM customers;
```

```
SELECT COUNT(*) FROM customers; -- 122
```

```
SELECT * FROM orders;
```

```
SELECT COUNT(*) FROM orders; -- 327
```

```
SELECT COUNT(DISTINCT customerNumber) FROM orders; -- 98
```

```
SELECT customerNumber, COUNT(ordernumber) as Order_Count
FROM orders
GROUP BY customerNumber
ORDER BY Order_Count DESC;
```

-- Inner join

```
SELECT
    c.customerNumber, c.customerName,
    o.orderNumber, o.orderDate, o.status, o.customerNumber as orders_customerNumber
FROM customers c
INNER JOIN orders o
ON c.customerNumber = o.customerNumber
ORDER BY c.customerNumber;
```

```
SELECT * FROM customers WHERE customerNumber = 103;
SELECT * FROM orders WHERE customerNumber = 103;
```

```
SELECT
    COUNT(*)
FROM customers c
INNER JOIN orders o
ON c.customerNumber = o.customerNumber; -- 327
```

-- =====8.3 LEFT Join=====

```
SELECT
    c.customerNumber, c.customerName,
    o.orderNumber, o.orderDate, o.status, o.customerNumber as orders_customerNumber
FROM customers c
```

```
LEFT JOIN orders o
ON c.customerNumber = o.customerNumber
ORDER BY c.customerNumber;
```

```
SELECT
    COUNT(*)
FROM customers c
LEFT JOIN orders o
ON c.customerNumber = o.customerNumber; -- 351
```

```
SELECT
    COUNT(*)
FROM customers c
LEFT JOIN orders o
ON c.customerNumber = o.customerNumber
WHERE o.customerNumber IS NULL; -- 24 extra rows in LEFT JOIN
```

```
SELECT
    COUNT(*)
FROM customers c
LEFT JOIN orders o
ON c.customerNumber = o.customerNumber
WHERE o.customerNumber IS NOT NULL; -- 327
```

-- =====8.4 RIGHT Join=====

```
SELECT
    c.customerNumber, c.customerName,
    o.orderNumber, o.orderDate, o.status, o.customerNumber as orders_customerNumber
```

FROM orders o

RIGHT JOIN customers c -- changed the order of the tables; now this output is same as the previous  
LEFT JOIN output

ON c.customerNumber = o.customerNumber

ORDER BY c.customerNumber;

-- =====8.5 Cross Join=====

SELECT DISTINCT city from offices;

SELECT COUNT(\*) city from offices;

-- No need of matching column condition

SELECT o1.city, o2.city FROM offices o1

CROSS JOIN offices o2;

SELECT COUNT(\*) FROM offices o1

CROSS JOIN offices o2;

-- Cross Join with WHERE

-- behaves like INNER JOIN

SELECT o1.city, o2.city FROM offices o1

CROSS JOIN offices o2

WHERE o1.city = o2.city;

-- =====8.6 Self Join=====

SELECT \* FROM employees;

-- Display the employee name and manager name

-- Self join using INNER JOIN clause

SELECT

```

        concat(e1.firstname, ' ', e1.lastname) as EmployeeName,
        concat(e2.firstname, ' ', e2.lastname) as ManagerName
FROM employees e1
INNER JOIN employees e2 ON e2.employeeNumber = e1.reportsTo;

```

-- Self join using LEFT JOIN clause

```

SELECT
        concat(e1.firstname, ' ', e1.lastname) as EmployeeName,
        concat(e2.firstname, ' ', e2.lastname) as ManagerName
FROM employees e1
LEFT JOIN employees e2 ON e2.employeeNumber = e1.reportsTo;

```

```

/*=====

```

## Section 9: Subqueries

```

=====*/

```

```

SELECT * FROM employees;
SELECT * FROM offices;

```

-- One approach using JOINS

```

SELECT *
FROM employees e
INNER JOIN offices o ON e.officeCode = o.officeCode
WHERE o.country = 'USA';

```

-- Using sub-query

```
SELECT *  
FROM employees  
WHERE officeCode IN (SELECT officeCode FROM offices WHERE country = 'USA');
```

```
SELECT officeCode FROM offices WHERE country = 'USA';
```

```
-- the above query is nothing but -
```

```
SELECT *  
FROM employees  
WHERE officeCode IN (1,2,3);
```

```
SELECT  
    customerNumber,  
    checkNumber,  
    amount  
FROM payments  
WHERE amount > (SELECT AVG(amount) FROM payments);
```

```
SELECT *  
FROM customers  
WHERE customerNumber NOT IN (SELECT DISTINCT customerNumber FROM orders);
```

```
-- =====Derived Tables=====
```

```
-- A derived table is a virtual table returned from a SELECT statement.
```

```
-- get the top five products by sales revenue in 2003 from the orders and orderdetails tables
```

```
SELECT  
    productCode,
```

```
    productName,  
    SUM(quantityOrdered * priceEach) as revenue  
FROM orderdetails  
  
INNER JOIN orders USING (orderNumber) -- USING keyword in JOINS. use this option when the two  
tables have the same column name.  
  
INNER JOIN products USING (productCode) -- multiple tables JOINED  
  
WHERE YEAR(shippedDate) = 2003  
  
GROUP BY productCode  
  
ORDER BY revenue DESC  
  
LIMIT 5;
```

-- Using a derived table

```
SELECT top5.productCode, p.productName, top5.revenue FROM  
  
    (  
        SELECT  
            productCode,  
            SUM(quantityOrdered * priceEach) as revenue  
            FROM orderdetails  
            INNER JOIN orders USING (orderNumber)  
            WHERE YEAR(shippedDate) = 2003  
            GROUP BY productCode  
            ORDER BY revenue DESC  
            LIMIT 5  
    ) as top5  
  
INNER JOIN products p ON p.productCode = top5.productCode;
```

```
/*=====
```

## Section 10: Temporary tables & CTEs

```
=====*/
```

```
/*
```

```
*****MySQL temporary tables*****
```

- A temporary table is created by using CREATE TEMPORARY TABLE statement.

Notice that the keyword TEMPORARY is added between the CREATE and TABLE keywords.

- MySQL removes the temporary table automatically when the session ends or the connection is terminated.

Of course, you can use the DROP TABLE statement to remove a temporary table explicitly when you are no longer use it.

```
*/
```

```
CREATE TEMPORARY TABLE `products_planes` (
```

```
`productCode` varchar(15) NOT NULL,
```

```
`productName` varchar(70) NOT NULL,
```

```
`productLine` varchar(50) NOT NULL,
```

```
`productScale` varchar(10) NOT NULL,
```

```
`productVendor` varchar(50) NOT NULL,
```

```
`productDescription` text NOT NULL,
```

```
`quantityInStock` smallint NOT NULL,
```

```
`buyPrice` decimal(10,2) NOT NULL,
```

```
`MSRP` decimal(10,2) NOT NULL,
```

```
PRIMARY KEY (`productCode`)
```

```
);
```

```
INSERT INTO products_planes
```

```
SELECT * FROM products WHERE productline = 'Planes';
```

```
SELECT * FROM products_planes;
```



```
-- DROP TEMPORARY TABLE products_planes;
```

```
-- *****Common Table Expression or CTE*****
```

-- A common table expression is a named temporary result set that exists only within the execution scope of a single SQL statement e.g.,SELECT, INSERT, UPDATE, or DELETE.

-- Similar to a derived table, a CTE is not stored as an object and last only during the execution of a query.

```
/*
```

```
SYNTAX
```

```
-----
```

```
WITH cte_name (column_list) AS (
```

```
    query
```

```
)
```

```
SELECT * FROM cte_name;
```

```
*/
```

```
;WITH cte1 AS
```

```
(
```

```
    SELECT
```

```
    productCode,
```

```
    SUM(quantityOrdered * priceEach) as revenue
```

```
    FROM orderdetails
```

```
    INNER JOIN orders USING (orderNumber)
```

```
    WHERE YEAR(shippedDate) = 2003
```

```
    GROUP BY productCode
```

```
    ORDER BY revenue DESC
```

```
    LIMIT 5
```

```
)
```

```
SELECT cte1.productCode, p.productName, cte1.revenue FROM cte1  
INNER JOIN products p ON p.productCode = cte1.productCode;
```

```
-- NESTED CTE
```

```
WITH salesrep AS (  
    SELECT employeeNumber,  
    CONCAT(firstName, ' ', lastName) AS salesrepName  
    FROM employees  
    WHERE jobTitle = 'Sales Rep'  
)  
customer_salesrep AS (  
    SELECT customerName, salesrepName  
    FROM customers c  
    INNER JOIN salesrep sr ON sr.employeeNumber = c.salesrepEmployeeNumber  
)  
SELECT *  
FROM customer_salesrep  
ORDER BY customerName;
```

USE retail;

/\*=====

## Section 12: Stored Procedures & Views

=====\*/

-- Change of Delimiter

-- MySQL Workbench or mysql program uses the delimiter (;) to separate statements and executes each statement separately.

-- If you use a MySQL client program to define a stored procedure that contains semicolon characters, the MySQL client program will not treat the whole stored procedure as a single statement, but many statements.

-- Therefore, you must redefine the delimiter temporarily so that you can pass the whole stored procedure to the server as a single statement.

-- The delimiter\_character may consist of a single character or multiple characters e.g., // or \$\$

/\*

SYNTAX

-----

DELIMITER \$\$

CREATE PROCEDURE sp\_name([param1, param2...])

BEGIN

    statement1;

    statement2;

    .....

END \$\$

DELIMITER ;

\*/

DELIMITER \$\$

CREATE PROCEDURE GetAllCustomers() -- No parameters declared

BEGIN

    SELECT \* FROM customers;

END \$\$

DELIMITER ;

CALL GetAllCustomers;

-- DROP PROCEDURE [IF EXISTS] GetAllCustomers;

-- Using parameters for Stored procedures with the keyword IN

DELIMITER \$\$

CREATE PROCEDURE GetOfficebyCountry (

    IN countryname VARCHAR(100)

)

BEGIN

    SELECT \* FROM offices WHERE country = countryname;

END \$\$

DELIMITER ;

CALL GetOfficebyCountry('UK');

CALL GetOfficebyCountry('USA');

-- OUT parameter to store the value returned by the store procedure

DELIMITER \$\$

CREATE PROCEDURE GetOrderCountByStatus (

```

        IN orderStatus VARCHAR(25),
        OUT total INT
    )
BEGIN
    SELECT COUNT(orderNumber)
    INTO total
    FROM orders
    WHERE status = orderStatus;
END $$

DELIMITER ;

CALL GetOrderCountByStatus ('Shipped', @total);
SELECT @total;

-- User-defined variable
SET @i = 'Shipped';
SELECT @i;
CALL GetOrderCountByStatus(@i,@total);
SELECT @total;

SET @i = 'Cancelled';
SELECT @i;
CALL GetOrderCountByStatus(@i,@total);
SELECT @total;

-- Stored Procedure Variables
-- DECLARE variable_name datatype(size) [DEFAULT default_value];

-- Alter the Store Proc
-- Right click and Alter, change the code and Apply.

```

DELIMITER \$\$

CREATE PROCEDURE GetOrderCountByStatus (

IN orderStatus VARCHAR(25),

OUT total INT

)

BEGIN

DECLARE OrderYear INT DEFAULT 2003;

SET OrderYear = 2004;

SELECT COUNT(orderNumber)

INTO total

FROM orders

WHERE status = orderStatus AND YEAR(orderDate) = OrderYear;

END\$\$

DELIMITER ;

SET @i = 'Shipped';

SELECT @i;

CALL GetOrderCountByStatus(@i,@total);

SELECT @total;

-- =====VIEW=====

-- CREATE View

CREATE VIEW customerPayments

AS

SELECT

customerName,

checkNumber,

paymentDate,

```
    amount
FROM
    customers
INNER JOIN
    payments USING (customerNumber);

SELECT * FROM customerPayments;

CREATE VIEW payments_datecalc
AS
SELECT
    *,CURRENT_DATE() as TodayDate,
    DATEDIFF(CURRENT_DATE,paymentDate) as Days,
    DATEDIFF(CURRENT_DATE,paymentDate)/365 as Years
FROM payments;

SELECT * FROM payments_datecalc;

-- Rename View
RENAME TABLE payments_datecalc TO payments_datecalc_1;
RENAME TABLE payments_datecalc_1 TO payments_datecalc;

-- DROP View
-- DROP VIEW [IF EXISTS] customerPayments;
```











