**CBD – Database Design**

**Exercise 1 (15%)**

**Date : Friday, 6th Sep 2019**

**Student Id : C0761755**

**Student Name: Anmol Sharma**

**Create Database having name:** F2019Ex1\_C0761755

**Schema:**



**Table Creation Queries (Don’t add any constraints) :**

CREATE TABLE Manufacturers (

Code INTEGER,

Name VARCHAR(255)

);

CREATE TABLE Products (

Code INTEGER,

Name VARCHAR(255) ,

Price DECIMAL ,

Manufacturer INTEGER

);

**Insert Statement for each table:**

INSERT INTO Manufacturers(Code,Name) VALUES(1,'Sony');

INSERT INTO Manufacturers(Code,Name) VALUES(2,'Creative Labs');

INSERT INTO Manufacturers(Code,Name) VALUES(3,'Hewlett-Packard');

INSERT INTO Manufacturers(Code,Name) VALUES(4,'Iomega');

INSERT INTO Manufacturers(Code,Name) VALUES(5,'Fujitsu');

INSERT INTO Manufacturers(Code,Name) VALUES(6,'Winchester');

INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(1,'Hard drive',240,5);

INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(2,'Memory',120,6);

INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(3,'ZIP drive',150,4);

INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(4,'Floppy disk',5,6);

INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(5,'Monitor',240,1);

INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(6,'DVD drive',180,2);

INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(7,'CD drive',90,2);

INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(8,'Printer',270,3);

INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(9,'Toner cartridge',66,3);

INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(10,'DVD burner',180,2);

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**Instruction**

**Write your query and results below each query**

**Each Query is of 5 Marks**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

|  |  |
| --- | --- |
| **Sr. #** | **Query Statements** |
| **1.1** | Select the names of all the products in the store. |
| **Query** | select Name from Products; |
| **Result** | +-----------------+  | Name |  +-----------------+  | Hard drive |  | Memory |  | ZIP drive |  | Floppy disk |  | Monitor |  | DVD drive |  | CD drive |  | Printer |  | Toner cartridge |  | DVD burner |  +-----------------+ |
| **1.2** | Select the names and the prices of all the products in the store. |
| **Query** | select Name,Price from Products; |
| **Result** | +-----------------+-------+  | Name | Price |  +-----------------+-------+  | Hard drive | 240 |  | Memory | 120 |  | ZIP drive | 150 |  | Floppy disk | 5 |  | Monitor | 240 |  | DVD drive | 180 |  | CD drive | 90 |  | Printer | 270 |  | Toner cartridge | 66 |  | DVD burner | 180 |  +-----------------+-------+ |
| **1.3** | Select the name of the products with a price less than or equal to $200. |
| **Query** | select Name from Products where price <=200; |
| **Result** | +-----------------+  | Name |  +-----------------+  | Memory |  | ZIP drive |  | Floppy disk |  | DVD drive |  | CD drive |  | Toner cartridge |  | DVD burner |  +-----------------+ |
| **1.4** | Select all the products with a price between $60 and $120. |
| **Query** | select \* from Products where price between 60 and 120; |
| **Result** | +------+-----------------+-------+--------------+  | Code | Name | Price | Manufacturer |  +------+-----------------+-------+--------------+  | 2 | Memory | 120 | 6 |  | 7 | CD drive | 90 | 2 |  | 9 | Toner cartridge | 66 | 3 |  +------+-----------------+-------+--------------+ |
| **1.5** | Select the name and price in cents (i.e., the price must be multiplied by 100) |
| **Query** | select Name,price,Price\*100 'Price in cents' from Products; |
| **Result** | +-----------------+-------+----------------+  | Name | price | Price in cents |  +-----------------+-------+----------------+  | Hard drive | 240 | 24000 |  | Memory | 120 | 12000 |  | ZIP drive | 150 | 15000 |  | Floppy disk | 5 | 500 |  | Monitor | 240 | 24000 |  | DVD drive | 180 | 18000 |  | CD drive | 90 | 9000 |  | Printer | 270 | 27000 |  | Toner cartridge | 66 | 6600 |  | DVD burner | 180 | 18000 |  +-----------------+-------+----------------+ |
| **1.6** | Compute the average price of all the products. |
| **Query** | select avg(price) 'Average Price' from Products; |
| **Result** | +---------------+  | Average Price |  +---------------+  | 154.1000 |  +---------------+ |
| **1.7** | Compute the average price of all products with manufacturer code equal to 2. |
| **Query** | select avg(price) 'Average Price',Manufacturer,code from Products where code =2; |
| **Result** | +---------------+--------------+------+  | Average Price | Manufacturer | code |  +---------------+--------------+------+  | 120.0000 | 6 | 2 |  +---------------+--------------+------+ |
| **1.8** | Compute the number of products with a price larger than or equal to $180. |
| **Query** | select \* from products where price >= 180; |
| **Result** | +------+------------+-------+--------------+  | Code | Name | Price | Manufacturer |  +------+------------+-------+--------------+  | 1 | Hard drive | 240 | 5 |  | 5 | Monitor | 240 | 1 |  | 6 | DVD drive | 180 | 2 |  | 8 | Printer | 270 | 3 |  | 10 | DVD burner | 180 | 2 |  +------+------------+-------+--------------+ |
| **1.9** | Select the name and price of all products with a price larger than or equal to $180, and sort first by price (in descending order), and then by name(in ascending order). |
| **Query** | select Name,price from products where price >=180 order by price Desc, Name asc; |
| **Result** | +------------+-------+  | Name | price |  +------------+-------+  | Printer | 270 |  | Hard drive | 240 |  | Monitor | 240 |  | DVD burner | 180 |  | DVD drive | 180 |  +------------+-------+ |
| **1.10** | Select the name and price of the cheapest product. |
| **Query** | select name,price from products where price = (select min(price)from products); |
| **Result** | +-------------+-------+  | name | price |  +-------------+-------+  | Floppy disk | 5 |  +-------------+-------+ |
| **1.11** | Add a new product: Loudspeakers, $70, manufacturer 2. |
| **Query** | insert into products values(11,'Loudspeakers',70,2); |
| **Result** | Query OK, 1 row affected (0.058 sec) |
| **1.12** | Update the name of product 8 to "Laser Printer". |
| **Query** | update products set name='Laser Printer' where code =8; |
| **Result** | Query OK, 1 row affected (0.066 sec)  Rows matched: 1 Changed: 1 Warnings: 0 |
| **1.13** | Apply a 10% discount to all products. |
| **Query** | select name,price,((price-price\*10/100)) 'Discounted price' from products; |
| **Result** | +-----------------+-------+------------------+  | name | price | Discounted price |  +-----------------+-------+------------------+  | Hard drive | 240 | 216.0000 |  | Memory | 120 | 108.0000 |  | ZIP drive | 150 | 135.0000 |  | Floppy disk | 5 | 4.5000 |  | Monitor | 240 | 216.0000 |  | DVD drive | 180 | 162.0000 |  | CD drive | 90 | 81.0000 |  | Laser Printer | 270 | 243.0000 |  | Toner cartridge | 66 | 59.4000 |  | DVD burner | 180 | 162.0000 |  | Loudspeakers | 70 | 63.0000 |  +-----------------+-------+------------------+ |
| **1.14** | Apply a 10% discount to all products with a price larger than or equal to $120. |
| **Query** | select name,price,((price-price\*10/100)) 'Discounted price' from products where price > 120; |
| **Result** | +---------------+-------+------------------+  | name | price | Discounted price |  +---------------+-------+------------------+  | Hard drive | 240 | 216.0000 |  | ZIP drive | 150 | 135.0000 |  | Monitor | 240 | 216.0000 |  | DVD drive | 180 | 162.0000 |  | Laser Printer | 270 | 243.0000 |  | DVD burner | 180 | 162.0000 |  +---------------+-------+------------------+ |
| **1.15** | Display those products whose manufacturer name is "Creative labs" |
| **Query** | select \* from Products where manufacturer = (select code from Manufacturers where name = 'Creative Labs'); |
| **Result** | +------+--------------+-------+--------------+  | Code | Name | Price | Manufacturer |  +------+--------------+-------+--------------+  | 6 | DVD drive | 180 | 2 |  | 7 | CD drive | 90 | 2 |  | 10 | DVD burner | 180 | 2 |  | 11 | Loudspeakers | 70 | 2 |  +------+--------------+-------+--------------+ |
| **1.16** | Display those products whose manufacturer code is 1, 3, or 6 |
| **Query** | select \* from products where manufacturer in (1,3,6); |
| **Result** | +------+-----------------+-------+--------------+  | Code | Name | Price | Manufacturer |  +------+-----------------+-------+--------------+  | 2 | Memory | 120 | 6 |  | 4 | Floppy disk | 5 | 6 |  | 5 | Monitor | 240 | 1 |  | 8 | Laser Printer | 270 | 3 |  | 9 | Toner cartridge | 66 | 3 |  +------+-----------------+-------+--------------+ |
| **1.17** | Display those products whose name starts with "M" |
| **Query** | select name from products where name like 'M%'; |
| **Result** | +---------+  | name |  +---------+  | Memory |  | Monitor |  +---------+ |
| **1.18** | Display those products whose name ends with "e" |
| **Query** | select name from Products where name like '%e'; |
| **Result** | +-----------------+  | name |  +-----------------+  | Hard drive |  | ZIP drive |  | DVD drive |  | CD drive |  | Toner cartridge |  +-----------------+ |
| **1.19** | Display those products whose name starts with "a" and ends with "e" |
| **Query** | select \* from products where name like 'a%e'; |
| **Result** | Empty set (0.001 sec) |
| **1.20** | Display those products whose name contains "drive" |
| **Query** | select \* from products where name like '%drive%'; |
| **Result** | +------+------------+-------+--------------+  | Code | Name | Price | Manufacturer |  +------+------------+-------+--------------+  | 1 | Hard drive | 240 | 5 |  | 3 | ZIP drive | 150 | 4 |  | 6 | DVD drive | 180 | 2 |  | 7 | CD drive | 90 | 2 |  +------+------------+-------+--------------+ |

**PASTE YOU LOG HERE**

**Setting environment for using XAMPP for Windows.**

**Anmol@DESKTOP-8I2K6CN c:\xampp**

**# mysql -u root**

**Welcome to the MariaDB monitor. Commands end with ; or \g.**

**Your MariaDB connection id is 23**

**Server version: 10.4.6-MariaDB mariadb.org binary distribution**

**Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.**

**Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.**

**MariaDB [(none)]> show databases;**

**+--------------------+**

**| Database |**

**+--------------------+**

**| employee |**

**| employee\_class |**

**| f2019ex1\_c0761755 |**

**| information\_schema |**

**| mysql |**

**| performance\_schema |**

**| phpmyadmin |**

**| test |**

**| uber\_eats |**

**+--------------------+**

**9 rows in set (0.001 sec)**

**MariaDB [(none)]> use F2019Ex1\_C0761755;**

**Database changed**

**MariaDB [F2019Ex1\_C0761755]> CREATE TABLE Manufacturers (**

**-> Code INTEGER,**

**-> Name VARCHAR(255)**

**-> );**

**Query OK, 0 rows affected (0.213 sec)**

**MariaDB [F2019Ex1\_C0761755]> CREATE TABLE Products (**

**-> Code INTEGER,**

**-> Name VARCHAR(255) ,**

**-> Price DECIMAL ,**

**-> Manufacturer INTEGER**

**-> );**

**Query OK, 0 rows affected (0.206 sec)**

**MariaDB [F2019Ex1\_C0761755]> show tables;**

**+-----------------------------+**

**| Tables\_in\_f2019ex1\_c0761755 |**

**+-----------------------------+**

**| manufacturers |**

**| products |**

**+-----------------------------+**

**2 rows in set (0.001 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Manufacturers(Code,Name) VALUES(1,'Sony');**

**Query OK, 1 row affected (0.054 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Manufacturers(Code,Name) VALUES(2,'Creative Labs');**

**Query OK, 1 row affected (0.048 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Manufacturers(Code,Name) VALUES(3,'Hewlett-Packard');**

**Query OK, 1 row affected (0.108 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Manufacturers(Code,Name) VALUES(4,'Iomega');**

**Query OK, 1 row affected (0.041 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Manufacturers(Code,Name) VALUES(5,'Fujitsu');**

**Query OK, 1 row affected (0.052 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Manufacturers(Code,Name) VALUES(6,'Winchester');**

**Query OK, 1 row affected (0.018 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(1,'Hard drive',240,5);**

**Query OK, 1 row affected (0.058 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(2,'Memory',120,6);**

**Query OK, 1 row affected (0.029 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(3,'ZIP drive',150,4);**

**Query OK, 1 row affected (0.119 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(4,'Floppy disk',5,6);**

**Query OK, 1 row affected (0.073 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(5,'Monitor',240,1);**

**Query OK, 1 row affected (0.096 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(6,'DVD drive',180,2);**

**Query OK, 1 row affected (0.063 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(7,'CD drive',90,2);**

**Query OK, 1 row affected (0.073 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(8,'Printer',270,3);**

**Query OK, 1 row affected (0.074 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(9,'Toner cartridge',66,3);**

**Query OK, 1 row affected (0.051 sec)**

**MariaDB [F2019Ex1\_C0761755]> INSERT INTO Products(Code,Name,Price,Manufacturer) VALUES(10,'DVD burner',180,2);**

**Query OK, 1 row affected (0.058 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from Products;**

**+------+-----------------+-------+--------------+**

**| Code | Name | Price | Manufacturer |**

**+------+-----------------+-------+--------------+**

**| 1 | Hard drive | 240 | 5 |**

**| 2 | Memory | 120 | 6 |**

**| 3 | ZIP drive | 150 | 4 |**

**| 4 | Floppy disk | 5 | 6 |**

**| 5 | Monitor | 240 | 1 |**

**| 6 | DVD drive | 180 | 2 |**

**| 7 | CD drive | 90 | 2 |**

**| 8 | Printer | 270 | 3 |**

**| 9 | Toner cartridge | 66 | 3 |**

**| 10 | DVD burner | 180 | 2 |**

**+------+-----------------+-------+--------------+**

**10 rows in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from Manufacturers;**

**+------+-----------------+**

**| Code | Name |**

**+------+-----------------+**

**| 1 | Sony |**

**| 2 | Creative Labs |**

**| 3 | Hewlett-Packard |**

**| 4 | Iomega |**

**| 5 | Fujitsu |**

**| 6 | Winchester |**

**+------+-----------------+**

**6 rows in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select Name from Products;**

**+-----------------+**

**| Name |**

**+-----------------+**

**| Hard drive |**

**| Memory |**

**| ZIP drive |**

**| Floppy disk |**

**| Monitor |**

**| DVD drive |**

**| CD drive |**

**| Printer |**

**| Toner cartridge |**

**| DVD burner |**

**+-----------------+**

**10 rows in set (0.001 sec)**

**MariaDB [F2019Ex1\_C0761755]> select Name,Price from the Products;**

**ERROR 1146 (42S02): Table 'f2019ex1\_c0761755.the' doesn't exist**

**MariaDB [F2019Ex1\_C0761755]> select Name,Price from Products;**

**+-----------------+-------+**

**| Name | Price |**

**+-----------------+-------+**

**| Hard drive | 240 |**

**| Memory | 120 |**

**| ZIP drive | 150 |**

**| Floppy disk | 5 |**

**| Monitor | 240 |**

**| DVD drive | 180 |**

**| CD drive | 90 |**

**| Printer | 270 |**

**| Toner cartridge | 66 |**

**| DVD burner | 180 |**

**+-----------------+-------+**

**10 rows in set (0.001 sec)**

**MariaDB [F2019Ex1\_C0761755]> select Name from Products where price <=200;**

**+-----------------+**

**| Name |**

**+-----------------+**

**| Memory |**

**| ZIP drive |**

**| Floppy disk |**

**| DVD drive |**

**| CD drive |**

**| Toner cartridge |**

**| DVD burner |**

**+-----------------+**

**7 rows in set (0.011 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from Products where price between 60 and 120;**

**+------+-----------------+-------+--------------+**

**| Code | Name | Price | Manufacturer |**

**+------+-----------------+-------+--------------+**

**| 2 | Memory | 120 | 6 |**

**| 7 | CD drive | 90 | 2 |**

**| 9 | Toner cartridge | 66 | 3 |**

**+------+-----------------+-------+--------------+**

**3 rows in set (0.001 sec)**

**MariaDB [F2019Ex1\_C0761755]> select Name,Price\*100 'Price in cents' from Products;**

**+-----------------+----------------+**

**| Name | Price in cents |**

**+-----------------+----------------+**

**| Hard drive | 24000 |**

**| Memory | 12000 |**

**| ZIP drive | 15000 |**

**| Floppy disk | 500 |**

**| Monitor | 24000 |**

**| DVD drive | 18000 |**

**| CD drive | 9000 |**

**| Printer | 27000 |**

**| Toner cartridge | 6600 |**

**| DVD burner | 18000 |**

**+-----------------+----------------+**

**10 rows in set (0.001 sec)**

**MariaDB [F2019Ex1\_C0761755]> select avg(price) 'Average Price' from Products;**

**+---------------+**

**| Average Price |**

**+---------------+**

**| 154.1000 |**

**+---------------+**

**1 row in set (0.030 sec)**

**MariaDB [F2019Ex1\_C0761755]> select avg(price),Manufacturers where code =2;**

**ERROR 1054 (42S22): Unknown column 'price' in 'field list'**

**MariaDB [F2019Ex1\_C0761755]> select avg(price) 'Average Price',Manufacturers from Products where code =2;**

**ERROR 1054 (42S22): Unknown column 'Manufacturers' in 'field list'**

**MariaDB [F2019Ex1\_C0761755]> select \* from Products;**

**+------+-----------------+-------+--------------+**

**| Code | Name | Price | Manufacturer |**

**+------+-----------------+-------+--------------+**

**| 1 | Hard drive | 240 | 5 |**

**| 2 | Memory | 120 | 6 |**

**| 3 | ZIP drive | 150 | 4 |**

**| 4 | Floppy disk | 5 | 6 |**

**| 5 | Monitor | 240 | 1 |**

**| 6 | DVD drive | 180 | 2 |**

**| 7 | CD drive | 90 | 2 |**

**| 8 | Printer | 270 | 3 |**

**| 9 | Toner cartridge | 66 | 3 |**

**| 10 | DVD burner | 180 | 2 |**

**+------+-----------------+-------+--------------+**

**10 rows in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select avg(price) 'Average Price',Manufacturer from Products where code =2;**

**+---------------+--------------+**

**| Average Price | Manufacturer |**

**+---------------+--------------+**

**| 120.0000 | 6 |**

**+---------------+--------------+**

**1 row in set (0.027 sec)**

**MariaDB [F2019Ex1\_C0761755]> select avg(price) 'Average Price',Manufacturer,code from Products where code =2;**

**+---------------+--------------+------+**

**| Average Price | Manufacturer | code |**

**+---------------+--------------+------+**

**| 120.0000 | 6 | 2 |**

**+---------------+--------------+------+**

**1 row in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select count() from products where price > 180;**

**ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near ') from products where price > 180' at line 1**

**MariaDB [F2019Ex1\_C0761755]> select \* from products where price > 180;**

**+------+------------+-------+--------------+**

**| Code | Name | Price | Manufacturer |**

**+------+------------+-------+--------------+**

**| 1 | Hard drive | 240 | 5 |**

**| 5 | Monitor | 240 | 1 |**

**| 8 | Printer | 270 | 3 |**

**+------+------------+-------+--------------+**

**3 rows in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from products where price >= 180;**

**+------+------------+-------+--------------+**

**| Code | Name | Price | Manufacturer |**

**+------+------------+-------+--------------+**

**| 1 | Hard drive | 240 | 5 |**

**| 5 | Monitor | 240 | 1 |**

**| 6 | DVD drive | 180 | 2 |**

**| 8 | Printer | 270 | 3 |**

**| 10 | DVD burner | 180 | 2 |**

**+------+------------+-------+--------------+**

**5 rows in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select Name,price,Price\*100 'Price in cents' from Products;**

**+-----------------+-------+----------------+**

**| Name | price | Price in cents |**

**+-----------------+-------+----------------+**

**| Hard drive | 240 | 24000 |**

**| Memory | 120 | 12000 |**

**| ZIP drive | 150 | 15000 |**

**| Floppy disk | 5 | 500 |**

**| Monitor | 240 | 24000 |**

**| DVD drive | 180 | 18000 |**

**| CD drive | 90 | 9000 |**

**| Printer | 270 | 27000 |**

**| Toner cartridge | 66 | 6600 |**

**| DVD burner | 180 | 18000 |**

**+-----------------+-------+----------------+**

**10 rows in set (0.001 sec)**

**MariaDB [F2019Ex1\_C0761755]> select Name,price from products where price >=180 order by price Desc, Name in asc;**

**ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'asc' at line 1**

**MariaDB [F2019Ex1\_C0761755]> select Name,price from products where price >=180 order by price Desc, Name asc;**

**+------------+-------+**

**| Name | price |**

**+------------+-------+**

**| Printer | 270 |**

**| Hard drive | 240 |**

**| Monitor | 240 |**

**| DVD burner | 180 |**

**| DVD drive | 180 |**

**+------------+-------+**

**5 rows in set (0.010 sec)**

**MariaDB [F2019Ex1\_C0761755]> select name,price from products where min(price);**

**ERROR 1111 (HY000): Invalid use of group function**

**MariaDB [F2019Ex1\_C0761755]> select name,price from products where (select min(price)from products);**

**+-----------------+-------+**

**| name | price |**

**+-----------------+-------+**

**| Hard drive | 240 |**

**| Memory | 120 |**

**| ZIP drive | 150 |**

**| Floppy disk | 5 |**

**| Monitor | 240 |**

**| DVD drive | 180 |**

**| CD drive | 90 |**

**| Printer | 270 |**

**| Toner cartridge | 66 |**

**| DVD burner | 180 |**

**+-----------------+-------+**

**10 rows in set (0.002 sec)**

**MariaDB [F2019Ex1\_C0761755]> select name,price from products where price = (select min(price)from products);**

**+-------------+-------+**

**| name | price |**

**+-------------+-------+**

**| Floppy disk | 5 |**

**+-------------+-------+**

**1 row in set (0.001 sec)**

**MariaDB [F2019Ex1\_C0761755]> desc products;**

**+--------------+---------------+------+-----+---------+-------+**

**| Field | Type | Null | Key | Default | Extra |**

**+--------------+---------------+------+-----+---------+-------+**

**| Code | int(11) | YES | | NULL | |**

**| Name | varchar(255) | YES | | NULL | |**

**| Price | decimal(10,0) | YES | | NULL | |**

**| Manufacturer | int(11) | YES | | NULL | |**

**+--------------+---------------+------+-----+---------+-------+**

**4 rows in set (0.058 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from products;**

**+------+-----------------+-------+--------------+**

**| Code | Name | Price | Manufacturer |**

**+------+-----------------+-------+--------------+**

**| 1 | Hard drive | 240 | 5 |**

**| 2 | Memory | 120 | 6 |**

**| 3 | ZIP drive | 150 | 4 |**

**| 4 | Floppy disk | 5 | 6 |**

**| 5 | Monitor | 240 | 1 |**

**| 6 | DVD drive | 180 | 2 |**

**| 7 | CD drive | 90 | 2 |**

**| 8 | Printer | 270 | 3 |**

**| 9 | Toner cartridge | 66 | 3 |**

**| 10 | DVD burner | 180 | 2 |**

**+------+-----------------+-------+--------------+**

**10 rows in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> insert into products values(11,Loudspeakers,70,2);**

**ERROR 1054 (42S22): Unknown column 'Loudspeakers' in 'field list'**

**MariaDB [F2019Ex1\_C0761755]> insert into products values(11,'Loudspeakers',70,2);**

**Query OK, 1 row affected (0.058 sec)**

**MariaDB [F2019Ex1\_C0761755]> update name from products set name='Laser Printer' where code =8;**

**ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'from products set name='Laser Printer' where code =8' at line 1**

**MariaDB [F2019Ex1\_C0761755]> update products set name='Laser Printer' where code =8;**

**Query OK, 1 row affected (0.066 sec)**

**Rows matched: 1 Changed: 1 Warnings: 0**

**MariaDB [F2019Ex1\_C0761755]> select name,price,(price\*10/100) 'Discounted price' from products;**

**+-----------------+-------+------------------+**

**| name | price | Discounted price |**

**+-----------------+-------+------------------+**

**| Hard drive | 240 | 24.0000 |**

**| Memory | 120 | 12.0000 |**

**| ZIP drive | 150 | 15.0000 |**

**| Floppy disk | 5 | 0.5000 |**

**| Monitor | 240 | 24.0000 |**

**| DVD drive | 180 | 18.0000 |**

**| CD drive | 90 | 9.0000 |**

**| Laser Printer | 270 | 27.0000 |**

**| Toner cartridge | 66 | 6.6000 |**

**| DVD burner | 180 | 18.0000 |**

**| Loudspeakers | 70 | 7.0000 |**

**+-----------------+-------+------------------+**

**11 rows in set (0.001 sec)**

**MariaDB [F2019Ex1\_C0761755]> select name,price,((price\*10/100)+price) 'Discounted price' from products;**

**+-----------------+-------+------------------+**

**| name | price | Discounted price |**

**+-----------------+-------+------------------+**

**| Hard drive | 240 | 264.0000 |**

**| Memory | 120 | 132.0000 |**

**| ZIP drive | 150 | 165.0000 |**

**| Floppy disk | 5 | 5.5000 |**

**| Monitor | 240 | 264.0000 |**

**| DVD drive | 180 | 198.0000 |**

**| CD drive | 90 | 99.0000 |**

**| Laser Printer | 270 | 297.0000 |**

**| Toner cartridge | 66 | 72.6000 |**

**| DVD burner | 180 | 198.0000 |**

**| Loudspeakers | 70 | 77.0000 |**

**+-----------------+-------+------------------+**

**11 rows in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select name,price,((price\*10/100)-price) 'Discounted price' from products;**

**+-----------------+-------+------------------+**

**| name | price | Discounted price |**

**+-----------------+-------+------------------+**

**| Hard drive | 240 | -216.0000 |**

**| Memory | 120 | -108.0000 |**

**| ZIP drive | 150 | -135.0000 |**

**| Floppy disk | 5 | -4.5000 |**

**| Monitor | 240 | -216.0000 |**

**| DVD drive | 180 | -162.0000 |**

**| CD drive | 90 | -81.0000 |**

**| Laser Printer | 270 | -243.0000 |**

**| Toner cartridge | 66 | -59.4000 |**

**| DVD burner | 180 | -162.0000 |**

**| Loudspeakers | 70 | -63.0000 |**

**+-----------------+-------+------------------+**

**11 rows in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select name,price,((price-price\*10/100)) 'Discounted price' from products;**

**+-----------------+-------+------------------+**

**| name | price | Discounted price |**

**+-----------------+-------+------------------+**

**| Hard drive | 240 | 216.0000 |**

**| Memory | 120 | 108.0000 |**

**| ZIP drive | 150 | 135.0000 |**

**| Floppy disk | 5 | 4.5000 |**

**| Monitor | 240 | 216.0000 |**

**| DVD drive | 180 | 162.0000 |**

**| CD drive | 90 | 81.0000 |**

**| Laser Printer | 270 | 243.0000 |**

**| Toner cartridge | 66 | 59.4000 |**

**| DVD burner | 180 | 162.0000 |**

**| Loudspeakers | 70 | 63.0000 |**

**+-----------------+-------+------------------+**

**11 rows in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select name,price,((price-price\*10/100)) 'Discounted price' from products where price > 120;**

**+---------------+-------+------------------+**

**| name | price | Discounted price |**

**+---------------+-------+------------------+**

**| Hard drive | 240 | 216.0000 |**

**| ZIP drive | 150 | 135.0000 |**

**| Monitor | 240 | 216.0000 |**

**| DVD drive | 180 | 162.0000 |**

**| Laser Printer | 270 | 243.0000 |**

**| DVD burner | 180 | 162.0000 |**

**+---------------+-------+------------------+**

**6 rows in set (0.001 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from Products;**

**+------+-----------------+-------+--------------+**

**| Code | Name | Price | Manufacturer |**

**+------+-----------------+-------+--------------+**

**| 1 | Hard drive | 240 | 5 |**

**| 2 | Memory | 120 | 6 |**

**| 3 | ZIP drive | 150 | 4 |**

**| 4 | Floppy disk | 5 | 6 |**

**| 5 | Monitor | 240 | 1 |**

**| 6 | DVD drive | 180 | 2 |**

**| 7 | CD drive | 90 | 2 |**

**| 8 | Laser Printer | 270 | 3 |**

**| 9 | Toner cartridge | 66 | 3 |**

**| 10 | DVD burner | 180 | 2 |**

**| 11 | Loudspeakers | 70 | 2 |**

**+------+-----------------+-------+--------------+**

**11 rows in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from Manufacturers;**

**+------+-----------------+**

**| Code | Name |**

**+------+-----------------+**

**| 1 | Sony |**

**| 2 | Creative Labs |**

**| 3 | Hewlett-Packard |**

**| 4 | Iomega |**

**| 5 | Fujitsu |**

**| 6 | Winchester |**

**+------+-----------------+**

**6 rows in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from Products where manufacturer = (select name from Manufacturers where name = 'Creative Labs');**

**Empty set, 1 warning (0.001 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from Products where manufacturer = (select code from Manufacturers where name = 'Creative Labs');**

**+------+--------------+-------+--------------+**

**| Code | Name | Price | Manufacturer |**

**+------+--------------+-------+--------------+**

**| 6 | DVD drive | 180 | 2 |**

**| 7 | CD drive | 90 | 2 |**

**| 10 | DVD burner | 180 | 2 |**

**| 11 | Loudspeakers | 70 | 2 |**

**+------+--------------+-------+--------------+**

**4 rows in set (0.039 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from products where manufacturer in (1,3,6);**

**+------+-----------------+-------+--------------+**

**| Code | Name | Price | Manufacturer |**

**+------+-----------------+-------+--------------+**

**| 2 | Memory | 120 | 6 |**

**| 4 | Floppy disk | 5 | 6 |**

**| 5 | Monitor | 240 | 1 |**

**| 8 | Laser Printer | 270 | 3 |**

**| 9 | Toner cartridge | 66 | 3 |**

**+------+-----------------+-------+--------------+**

**5 rows in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from products where name = m%;**

**ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '' at line 1**

**MariaDB [F2019Ex1\_C0761755]> select \* from products where name = 'm%';**

**Empty set (0.001 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from products where name = 'M%';**

**Empty set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from products where name is M%;**

**ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'M%' at line 1**

**MariaDB [F2019Ex1\_C0761755]> select name from products where name like M%;**

**ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '' at line 1**

**MariaDB [F2019Ex1\_C0761755]> select name from products where name like 'M%';**

**+---------+**

**| name |**

**+---------+**

**| Memory |**

**| Monitor |**

**+---------+**

**2 rows in set (0.001 sec)**

**MariaDB [F2019Ex1\_C0761755]> select name from Products where name like = '%e';**

**ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '= '%e'' at line 1**

**MariaDB [F2019Ex1\_C0761755]> select name from Products where name like '%e';**

**+-----------------+**

**| name |**

**+-----------------+**

**| Hard drive |**

**| ZIP drive |**

**| DVD drive |**

**| CD drive |**

**| Toner cartridge |**

**+-----------------+**

**5 rows in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from products where name like 'a%e';**

**Empty set (0.001 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from products where name like 'drive';**

**Empty set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]> select \* from products where name like '%drive%';**

**+------+------------+-------+--------------+**

**| Code | Name | Price | Manufacturer |**

**+------+------------+-------+--------------+**

**| 1 | Hard drive | 240 | 5 |**

**| 3 | ZIP drive | 150 | 4 |**

**| 6 | DVD drive | 180 | 2 |**

**| 7 | CD drive | 90 | 2 |**

**+------+------------+-------+--------------+**

**4 rows in set (0.000 sec)**

**MariaDB [F2019Ex1\_C0761755]>**