Santa Ana College
CMPR114
m10 homework #10
Objectives:

- SQLite Management Studio.

Note: you do not have to use Python for this homework assignment.

There are 2 projects, each worth 50%.

Project #1 (Complete the following below using the SQLite management studio)

Algorithm Workbench

For the following questions, assume that an SQLite database has a table named `Stock`, with the following columns:

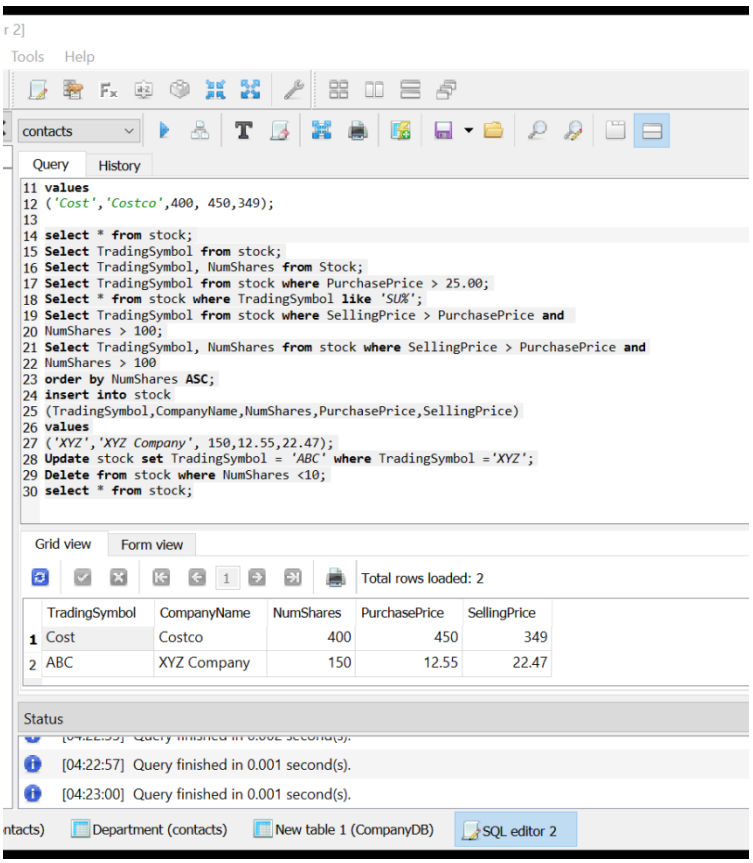
Column Name	Type
`TradingSymbol`	`TEXT`
`CompanyName`	`TEXT`
`NumShares`	`INTEGER`
`PurchasePrice`	`REAL`
`SellingPrice`	`REAL`

1. Write an SQL `SELECT` statement that will return all of the columns from every row in the `Stock` table.
2. Write an SQL `SELECT` statement that will return the `TradingSymbol` column from every row in the `Stock` table.
3. Write an SQL `SELECT` statement that will return the `TradingSymbol` column and the `NumShares` column from every row in the `Stock` table.
4. Write an SQL `SELECT` statement that will return the `TradingSymbol` column only from the rows where `PurchasePrice` is greater than 25.00.
5. Write an SQL `SELECT` statement that will return all of the columns from the rows where `TradingSymbol` starts with "SU".
6. Write an SQL `SELECT` statement that will return the `TradingSymbol` column only from the rows where `SellingPrice` is greater than `PurchasePrice`, and `NumShares` is greater than 100.
7. Write an SQL `SELECT` statement that will return the `TradingSymbol` column and the `NumShares` column only from the rows where `SellingPrice` is greater than `PurchasePrice`, and `NumShares` is greater than 100. The results should be sorted by the `NumShares` column, in ascending order.
8. Write an SQL statement that will insert a new row into the `Stock` table. The row should have the following column values:

   `TradingSymbol`: XYZ
   `CompanyName`: "XYZ Company"
   `NumShares`: 150
   `PurchasePrice`: 12.55
   `SellingPrice`: 22.47
9. Write an SQL statement that does the following: For each row in the `Stock` table, if the `TradingSymbol` column is "XYZ", change it to "ABC".
10. Write an SQL statement that will delete rows in the `Stock` table where the number of shares is less than 10.

Santa Ana College
CMPR114
m10 homework #10

#1 print screen all 10 scripts below here with the output for each.

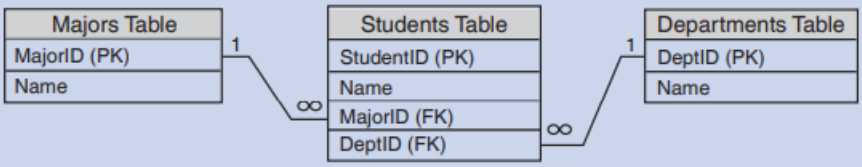


1.select * from stock;
2.Select TradingSymbol from stock;
3.Select TradingSymbol, NumShares from Stock;
4.Select TradingSymbol from stock where PurchasePrice > 25.00;
5.Select * from stock where TradingSymbol like 'SU%';
6.Select TradingSymbol from stock where SellingPrice > PurchasePrice and
NumShares > 100;
7. Select TradingSymbol, NumShares from stock where SellingPrice > PurchasePrice and
NumShares > 100
order by NumShares ASC;
8. insert into stock
(TradingSymbol,CompanyName,NumShares,PurchasePrice,SellingPrice)
values
('XYZ','XYZ Company', 150,12.55,22.47);
9. Update stock set TradingSymbol = 'ABC' where TradingSymbol ='XYZ';
10. Delete from stock where NumShares <10;

Project #2 (design the three tables with relations below and enter 3 random rows into each table).

Santa Ana College
CMPR114
m10 homework #10

Figure 14-12 Entity relationship diagram for the student_info.db database



Then display or extract the three rows from the three tables by joining the three tables.

#2 print screen the SQL script below here

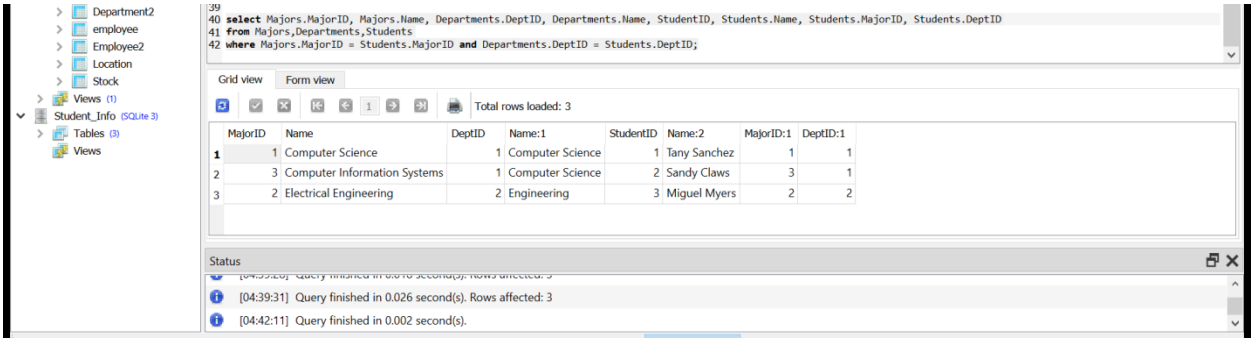
```
1 create table Majors
2 (MajorID int primary key,
3 Name text not null);
4
5 create table Students
6 (StudentID int Primary Key,
7 Name text not null,
8 MajorID int not null,
9 DeptID int not null,
10 Constraint MajorID_FK foreign key (MajorID)
11 references Majors (MajorID),
12 constraint DeptID_FK foreign key (DeptID)
13 references Departments (DeptID));
14
15 create table Departments
16 (DeptID int Primary Key,
17 Name text not null);
18
```

```
19 insert into Majors
20 (MajorID,Name)
21 values
22 (1, 'Computer Science'),
23 (2,'Electrical Engineering'),
24 (3,'Computer Information Systems');
25
26 insert into Departments
27 (DeptID,Name)
28 values
29 (1, 'Computer Science'),
30 (2,'Engineering'),
31 (3,'Business');
32
33 insert into Students
34 (StudentID,Name,MajorID,DeptID)
35 values
36 (1, 'Tany Sanchez', 1,1),
37 (2, 'Sandy Claws', 3,1),
38 (3, 'Miguel Myers', 2,2);
```

```
39
40 select Majors.MajorID, Majors.Name, Departments.DeptID, Departments.Name, StudentID, Students.Name, Students.MajorID, Students.DeptID
41 from Majors,Departments,Students
42 where Majors.MajorID = Students.MajorID and Departments.DeptID = Students.DeptID;
```

Santa Ana College
CMPR114
m10 homework #10

#3 print screen the output after executing the SQL script below here.



Submit this document to Module 10 Homework.