

A

Chapter Exercise Answers

Chapter 1: Basic Relational Database Design

Exercise Answers

Doctor Table

Doctor ID	FirstName	LastName	DoctorType	OfficeLocation	HireDate
1	Jim	Norton	Cardiologist	Middletown	10/23/04
2	Paul	Hargus	Pediatrician	Cromwell	11/14/99
3	Sam	Johnson	Neurologist	Portland	06/30/05

Patient Table

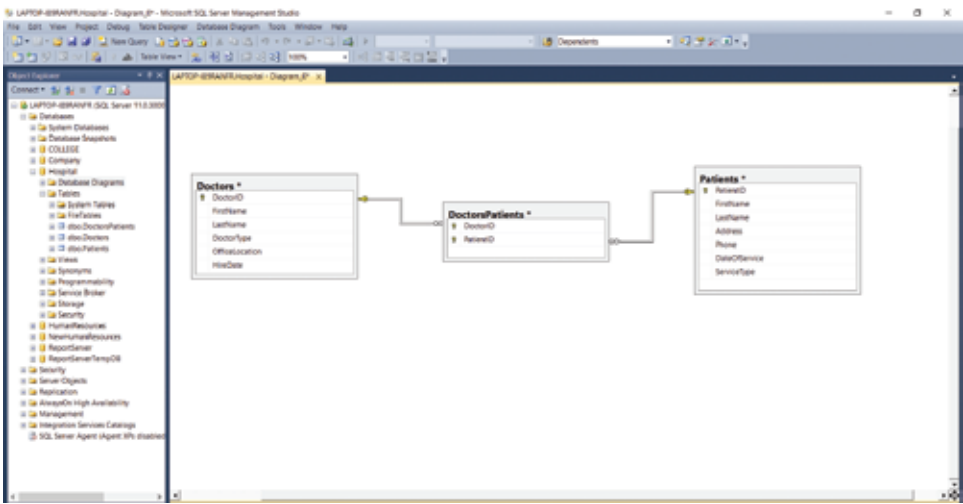
PatientID	FirstName	LastName	Address	Phone	DateOfService	ServiceType
1	Anthony	Kumia	45 Church St	(235) 343-5456	01/21/17	Routine Check up
2	Kyle	Myers	34 Main St	(343) 435-6442	10/23/16	Routine Check up
3	Matt	Woodworth	9 Wildwood dr.	(642) 542-4123	03/04/17	Blood Work

Bridge Table

DoctorID	PatientID
1	1
1	3
2	3
2	1
2	2
3	2
3	3
3	1

Chapter 2: Creating a Physical Database

Exercise Answers



Chapter 3: Inserting, Updating, and Deleting Data

Exercise Answers

```
INSERT INTO Patients VALUES ('Paul', 'Johnson', '9th Street', '850-456-3253',  
'07/23/2016', 'Blood work')  
INSERT INTO Patients VALUES ('Mary', 'Tarkov', '4th Street', '850-223-3253',  
'6/14/2015', 'Check up')  
INSERT INTO Patients VALUES ('Jordan', 'Cap', '9th Street', '850-777-3652',  
'01/26/2013', 'Vaccinations')  
INSERT INTO Patients VALUES ('Kyle', 'Myers', '2nd Street', '850-994-3342',  
'08/20/2016', 'Check up')  
INSERT INTO Patients VALUES ('Matt', 'Weigle', '1st Street', '850-994-3342',  
'08/20/2016', 'Check up')
```

--Part 2

```
UPDATE Patients  
SET Phone = '454-5456-3425'  
WHERE PatientID = 1
```

```
UPDATE Patients  
SET LastName = 'Tarkova'  
WHERE FirstName = 'Mary' AND LastName = 'Tarkov'
```

```
UPDATE Patients  
SET Address = '10th Street'  
WHERE PatientID = 2
```

--Part 3

```
DELETE  
FROM Patients  
WHERE PatientID = 2
```

```
DELETE  
FROM Patients  
WHERE FirstName = 'Paul'
```

```
DELETE  
FROM Patients  
WHERE LastName = 'Johnson'
```

Chapter 4: Single Table Query Basics

Exercise Answers

Question #	Rows	SQL
Question 1	102	<code>SELECT * FROM Addresses</code>
Question 2	102	<code>SELECT AddressesID, EmployeeId, AddressLine1, AddressLine2, City, State, Zip1, Zip2, ModifiedDate FROM Addresses</code>
Question 3	102	<code>SELECT EmployeeID, AddressLine1, City, State, Zip1 FROM Addresses</code>
Question 4	102	<code>SELECT EmployeeID 'Employee ID', AddressLine1 'Address', City, State, Zip1 'Zip Code' FROM Addresses</code>
Question 5	11	<code>SELECT DISTINCT State FROM Addresses</code>
Question 6	2	<code>SELECT EmployeeID, AddressLine1, City, State, Zip1 FROM Addresses WHERE State = 'CA'</code>

Question #	Rows	SQL
Question 7	25	SELECT * FROM Addresses WHERE ModifiedDate >= '2000-06-21'
Question 8	77	SELECT * FROM Addresses WHERE ModifiedDate <= '2000-06-21' ORDER BY EmployeeID
Question 9	102	SELECT * FROM Addresses ORDER BY State ASC, ModifiedDate DESC
Question 10	5	SELECT TOP 5 * FROM Addresses ORDER BY ModifiedDate DESC
Question 11	102	SELECT AddressLine1 'Street', Zip1 'ZipCode' from Addresses
Question 12	1	SELECT LastName FROM Employees WHERE LastName = 'O''Brien'
Question 13	63	SELECT * FROM Employees WHERE LastName < 'Miller'
Question 14	60	SELECT FirstName, Lastname, title, gender, Salary FROM Employees WHERE Salary < 40000 ORDER BY Gender, Title
Question 15	10	SELECT TOP 10 Salary, EmployeeID, FirstName, LastName FROM Employees ORDER BY Salary DESC

Chapter 5: Using Logical Operators in SQL Statements

Exercise Answers

Question #	Rows	SQL
Question 1	2	<pre>SELECT FirstName, MiddleName, LastName, Title FROM Employees WHERE Gender = 'M' AND MaritalStatus = 'S' AND Title = 'Buyer'</pre>
Question 2	3	<pre>SELECT FirstName, MiddleName, LastName, Title FROM Employees WHERE Gender = 'M' AND MaritalStatus = 'S' AND (Title = 'Marketing Specialist OR Title = 'Marketing Assistant')</pre>
Question 3	32	<pre>SELECT FirstName, MiddleName, LastName, Title FROM Employees WHERE Gender = 'F' AND NOT Title = 'Sales Representative'</pre>
Question 4	8	<pre>SELECT FirstName, MiddleName, LastName, Title, Gender FROM Employees WHERE Gender = 'M' AND Title = 'Sales Representative' OR (Gender = 'F' AND Title = 'Sales Representative' AND MaritalStatus = 'M')</pre>
Question 5	22	<pre>SELECT FirstName, LastName, Title FROM Employees WHERE Title IN ('Design Engineer', 'Sales Representative', 'Marketing Specialist', 'Network Manager')</pre>
Question 6	5	<pre>SELECT FirstName, LastName, Title, Salary FROM Employees WHERE Salary IN (42500.02, 44999.97, 67999.98, 105000.06)</pre>
Question 7	97	<pre>SELECT FirstName, LastName, Title, Salary FROM Employees WHERE Salary NOT IN (42500.02, 44999.97, 67999.98, 105000.06)</pre>

Question #	Rows	SQL
Question 8	59	<pre>SELECT FirstName, LastName, Title, Salary FROM Employees WHERE Salary BETWEEN 25000 AND 44300 ORDER BY Salary</pre>
Question 9	2	<pre>SELECT FirstName, LastName, Title, Salary FROM Employees WHERE LastName LIKE 'Va%'</pre>
Question 10	3	<pre>SELECT FirstName, LastName, Title, Salary FROM Employees WHERE LastName LIKE 'B_____'</pre>
Question 11	6	<pre>SELECT FirstName, LastName, Title, Salary FROM Employees WHERE LastName LIKE 'k%' OR LastName LIKE '%k'</pre>
Question 12	14	<pre>SELECT FirstName, LastName, Title, Salary FROM Employees WHERE FirstName NOT LIKE '%a%' AND FirstName NOT LIKE '%i%'</pre>
Question 13	14	<pre>SELECT AddressLine1, City, Zip1, Zip2 FROM Address WHERE Zip2 IS NOT NULL</pre>
Question 14	10	<pre>SELECT Firstname, LastName, Title, Salary, VacationHours+SickLeaveHours "Total Hours" FROM Employees WHERE VacationHours + SickLeaveHours <= 50</pre>
Question 15	24	<pre>SELECT Firstname, LastName, Title, Salary, VacationHours + SickLeaveHours "Total Hours", (VacationHours + SickLeaveHours) / 40 "Weeks" FROM Employees WHERE (VacationHours + SickLeaveHours) / 40 < 2</pre>

Chapter 6: Grouping Data Using Aggregate Functions

Exercise Answers

Question #	Rows	Totals	SQL
Question 1	2	M:58, S:44	<pre>SELECT MaritalStatus, COUNT(*) 'Total Count' FROM Employees GROUP BY MaritalStatus</pre>
Question 2	2	Buyer: 9, SalesRep: 13	<pre>SELECT Title, COUNT(*) 'Total Count' FROM Employees GROUP BY Title HAVING COUNT(*) > 5</pre>
Question 3	3	Acct: 2 Buyer: 3 RDE: 2	<pre>SELECT Title, COUNT(*) 'Total Count' FROM Employees WHERE Salary >= 50000 GROUP BY Title HAVING COUNT(*) > 1</pre>
Question 4	8	N/A	<pre>SELECT TITLE, AVG(Salary) 'Average Salary' FROM Employees GROUP BY TITLE HAVING AVG(SALARY) > 75000</pre>
Question 5	46	N/A	<pre>SELECT Title, SUM(VacationHours) 'Vacation', SUM(SickLeaveHours) 'Sick Leave' FROM Employees GROUP BY TITLE</pre>
Question 6	6	N/A	<pre>SELECT Title, Min(VacationHours) 'Minimum Vacation Hours' FROM Employees GROUP BY Title HAVING Min(VacationHours) < 10</pre>
Question 7	4	N/A	<pre>SELECT Title, Max(SickLeaveHours) 'Sick Leave' FROM Employees GROUP BY Title HAVING Max(SickLeaveHours) > 65</pre>
Question 8	6	N/A	<pre>SELECT GroupName, COUNT(*) 'Total' FROM Departments GROUP BY GroupName</pre>

Question #	Rows	Totals	SQL
Question 9	11	N/A	SELECT [State], COUNT(*) FROM Addresses GROUP BY State
Question 10	4	N/A	SELECT Title, Gender, MaritalStatus, COUNT(*) 'Total Employees' FROM Employees GROUP BY Title, Gender, MaritalStatus HAVING COUNT(*) > 3 ORDER BY Title, Gender, MaritalStatus
Question 11	1	N/A	SELECT Title, MAX(Salary) 'Maximum Salary' FROM Employees Group by Title HAVING Title = 'Accountant'
Question 12	10	N/A	SELECT Title, MIN(Salary) 'Minimum Salary', COUNT(*) 'Total Employees' FROM Employees GROUP BY Title, Salary HAVING COUNT(*) < 3 AND MIN(Salary)>70000
Question 13	23	N/A	SELECT title, gender, AVG(salary) 'Average Salary' FROM Employees WHERE gender = 'F' GROUP BY title, Gender
Question 14	1	122099.96	SELECT Title, SUM(Salary) 'Salary Sum' FROM Employees WHERE Title = 'Accountant' GROUP BY Title
Question 15	3	N/A	SELECT TOP 3 MIN(Salary), FirstName, LastName FROM Employee GROUP BY LastName, FirstName, Title, Salary HAVING title = 'Marketing Specialist' ORDER by Salary

Chapter 7: Joins**Exercise Answers**

Question 1	102	<pre>SELECT E.EmployeeID, E.FirstName, E.LastName, A.AddressLine1, A.AddressLine2, A.City, A.State, A.Zip1, A.Zip2 FROM Employees E INNER JOIN Addresses A ON E.EmployeeID = A.EmployeeID</pre>
Question 2	5	<pre>SELECT E.EmployeeID, E.FirstName, E.LastName, A.AddressLine1, A.AddressLine2, A.City, A.State, A.Zip1, A.Zip2 FROM Employees E INNER JOIN Addresses A ON E.EmployeeID = A.EmployeeID WHERE State in ('MA', 'CA')</pre>
Question 3	10404	<pre>SELECT E.EmployeeID, E.FirstName, E.LastName, Title, A.AddressLine1, A.AddressLine2, A.City, A.State, A.Zip1, A.Zip2 FROM Employees E, Addresses A ORDER BY E.EmployeeID</pre>
Question 4	112	<pre>SELECT E.EmployeeID, E.FirstName, E.LastName, Title, D.Gender, D.BirthDate FROM Employees E LEFT OUTER JOIN Dependents D ON E.EmployeeID = D.EmployeeID</pre>
Question 5	112	<pre>SELECT E.EmployeeID, E.FirstName, E.LastName, Title, D.Gender, D.BirthDate FROM EmployeesDependents D RIGHT OUTER JOIN Employees E ON D.EmployeeID = E.EmployeeID</pre>
Question 6	96	<pre>SELECT E.FirstName, E.LastName, E.Title, M.FirstName, M.LastName, M.Title FROM Employees E INNER JOIN Employee M on E.ManagerID = M.EmployeeID ORDER BY 1</pre>

Question 7	2	<pre> SELECT E.FirstName, E.LastName, A.AddressLine1, A.AddressLine2, A.City, A.State, A.Zip1, A.Zip2, D.DepartmentName, D.GroupName FROM Employees E INNER JOIN EmployeesDepartments ED ON E.EmployeeID = ED.EmployeeID INNER JOIN Departments D ON ED.DepartmentID = D.DepartmentID INNER JOIN Addresses A ON E.EmployeeID = A.EmployeeID WHERE firstName = 'David' and LastName = 'Bradley' </pre>
Question 8	9	<pre> SELECT E.EmployeeID, E.FirstName, E.LastName, Title, D.FirstName, D.LastName, D.Gender FROM Employees E INNER JOIN Dependents D ON E.EmployeeID = D.EmployeeID WHERE D.Gender = 'F' </pre>
Question 9	16	<pre> SELECT E.EmployeeID, E.FirstName, E.LastName, Title, D.FirstName, D.LastName, D.Gender, D.BirthDate FROM Employee E INNER JOIN EmployeeDependents D ON E.EmployeeID = D.EmployeeID WHERE D.BirthDate <= '2008-11-02' </pre>
Question 10	112	<pre> SELECT E.FirstName, E.LastName, D.DepartmentName, DE.FirstName 'Dependent First Name', DE.LastName 'Dependent Last Name' FROM Employees E LEFT OUTER JOIN EmployeesDepartments ED ON E.EmployeeID = ED.EmployeeID LEFT OUTER JOIN Departments D ON ED.DepartmentID = D.DepartmentID LEFT OUTER JOIN EmployeesDependents DE ON E.EmployeeID = DE.EmployeeID WHERE ED.EndDate IS NULL </pre>

Question 11	112	<pre> SELECT E.FirstName, E.LastName, D.DepartmentName, DE.FirstName, DE.LastName FROM EmployeesDependents DE RIGHT OUTER JOIN Employees E ON E.EmployeeID = DE.EmployeeID RIGHT OUTER JOIN EmployeesDepartments ED ON E.EmployeeID = ED.EmployeeID RIGHT OUTER JOIN Departments D ON ED.DepartmentID = D.DepartmentID WHERE ED.EndDate IS NULL </pre>
Question 12	6	<pre> SELECT E.EmployeeID, E.FirstName, E.LastName, E.Title, DE.FirstName, DE.LastName, DE.Gender FROM Employees E INNER JOIN EmployeesDependents DE ON E.EmployeeID = DE.EmployeeID WHERE DE.BirthDate < '1998-01-01' </pre>
Question 13	13	<pre> SELECT D.DepartmentName, E.FirstName, E.LastName FROM Departments D INNER JOIN EmployeesDepartments ED ON D.DepartmentID = ED.DepartmentID INNER JOIN Employees E ON ED.EmployeeID = E.EmployeeID WHERE D.DepartmentName = 'Purchasing' </pre>
Question 14	1	<pre> SELECT E.FirstName, E.LastName, E.Title, M.FirstName, M.LastName, M.Title FROM Employees E INNER JOIN Employees M on E.ManagerID = M.EmployeeID GROUP BY E.FirstName, E.LastName, E.Title, M.FirstName, M.LastName, M.Title Having E.FirstName = 'Ben' and E.LastName = 'Miller' </pre>
Question 15	1	<pre> SELECT E.FirstName, E.LastName, D.GroupName, D.DepartmentName From Employees E inner join Departments D on E.EmployeeID = D.DepartmentID where E.FirstName = 'Gail' and E.LastName = 'Erickson' </pre>

Chapter 8: Going Beyond Joins with Set Operations: UNION, INTERSECT, EXCEPT

Exercise Answers

Question 1	45	SELECT First, Last, MI, Sex, DOB FROM MEMBERS UNION SELECT First, Last, MI, Sex, DOB FROM VOLUNTEERS
Question 2	115	SELECT First, Last, MI, Sex, DOB FROM MEMBERS UNION SELECT FirstName, LastName, MiddleName, Gender, BirthDate FROM Employees
Question 3	53	SELECT First, Last, MI, Sex, DOB FROM MEMBERS UNION ALL SELECT First, Last, MI, Sex, DOB FROM VOLUNTEERS ORDER BY Sex
Question 4	8	SELECT First, Last, MI, Sex, DOB FROM MEMBERS INTERSECT SELECT First, Last, MI, Sex, DOB FROM VOLUNTEERS
Question 5	5	SELECT First, Last, MI, Sex, DOB FROM MEMBERS INTERSECT SELECT FirstName, LastName, MiddleName, Gender, BirthDate FROM Employees
Question 6	10	SELECT First, Last, MI, Sex, DOB FROM MEMBERS EXCEPT SELECT First, Last, MI, Sex, DOB FROM VOLUNTEERS
Question 7	27	SELECT First, Last, MI, Sex, DOB FROM Volunteers EXCEPT SELECT First, Last, MI, Sex, DOB FROM Members
Question 8	102	SELECT FirstName, LastName, Salary, 'High' Status FROM Employees Where Salary > 100000 UNION SELECT FirstName, LastName, Salary, 'Medium' Status FROM Employees Where Salary BETWEEN 50000 AND 100000 UNION SELECT FirstName, LastName, Salary, 'Low' Status FROM Employees Where Salary < 50000 ORDER BY Salary

Question 9	16	<pre> SELECT DepartmentName, GroupName, 'Top Management' Category FROM Departments WHERE GroupName = 'Executive General and Administration' UNION SELECT DepartmentName, GroupName, 'Middle Management' Category FROM Departments WHERE GroupName = 'Inventory Management' UNION SELECT DepartmentName, GroupName, 'Middle Management' Category FROM Departments WHERE GroupName = 'Sales and Marketing' UNION SELECT DepartmentName, GroupName, 'Middle Management' Category FROM Departments WHERE GroupName = 'Research and Development' UNION SELECT DepartmentName, GroupName, 'Specialists' Category FROM Departments WHERE GroupName = 'Quality Assurance' UNION SELECT DepartmentName, GroupName, 'Laborers' Category FROM Departments WHERE GroupName = 'Manufacturing' ORDER BY Category </pre>
Question 10	102	<pre> SELECT FirstName, LastName, VacationHours, 'Excessive' FROM Employees WHERE VacationHours > 75 UNION SELECT FirstName, LastName, VacationHours, 'Standard' FROM Employees WHERE VacationHours BETWEEN 25 AND 75 UNION SELECT FirstName, LastName, VacationHours, 'Low' FROM Employees WHERE VacationHours < 25 ORDER BY VacationHours </pre>

Question 11	102	<pre> SELECT FirstName, LastName, BirthDate, 'Silent Generation' 'Generation' FROM Employees WHERE BirthDate BETWEEN '1/1/1925' AND '12/31/1942' UNION SELECT FirstName, LastName, BirthDate, 'Baby Boomers' FROM Employees WHERE BirthDate BETWEEN '1/1/1943' AND '12/31/1960' UNION SELECT FirstName, LastName, BirthDate, 'Generation X' FROM Employees WHERE BirthDate BETWEEN '1/1/1961' AND '12/31/1984' UNION SELECT FirstName, LastName, BirthDate, 'Millennials' FROM Employees WHERE BirthDate BETWEEN '1/1/1985' AND '12/31/1999' ORDER BY BirthDate </pre>
Question 12	102	<pre> SELECT E.FirstName, E.LastName, 'Washington' 'State' FROM Employees E INNER JOIN [Addresses] A ON E.EmployeeID = A.EmployeeID WHERE A.[State] = 'WA' UNION SELECT E.FirstName, E.LastName, 'Massachusetts' FROM Employees E INNER JOIN [Addresses] A ON E.EmployeeID = A.EmployeeID WHERE A.[State] = 'MA' UNION SELECT E.FirstName, E.LastName, 'California' FROM Employees E INNER JOIN [Addresses] A ON E.EmployeeID = A.EmployeeID WHERE A.[State] = 'CA' UNION SELECT E.FirstName, E.LastName, 'Other' FROM Employees E INNER JOIN [Addresses] A ON E.EmployeeID = A.EmployeeID WHERE A.[State] NOT IN ('WA', 'MA', 'CA') </pre>
Question 13	1	<pre> SELECT FirstName, LastName FROM Employees INTERSECT SELECT FirstName, LastName FROM GymMembers </pre>

Question 14	17	<pre> SELECT FirstName, 'NONE' 'MiddleName', LastName FROM EmployeesDependents WHERE MiddleName IS NULL UNION SELECT FirstName, MiddleName, LastName FROM EmployeesDependents WHERE MiddleName IS NOT NULL </pre>
Question 15	102	<pre> SELECT FirstName, LastName, 'Married' 'Marital Status' FROM Employees WHERE MaritalStatus = 'M' UNION SELECT FirstName, LastName, 'Single' 'Marital Status' FROM Employees WHERE MaritalStatus = 'S' </pre>

Chapter 9: Subqueries

Exercise Answers

Question #	Rows	SQL
Question 1	2	<pre> SELECT FirstName, LastName, Title, VacationHours FROM Employees WHERE VacationHours = (Select MAX(VacationHours) FROM Employees) </pre>
Question 2	52	<pre> SELECT FirstName, LastName, Title, VacationHours FROM Employees WHERE VacationHours > (Select AVG(VacationHours) FROM Employees) </pre>
Question 3	2	<pre> SELECT EmployeeID, FirstName, LastName, Title, Salary FROM Employees WHERE EmployeeID IN (SELECT EmployeeID FROM Addresses WHERE State = 'CA') </pre>
Question 4	2	<pre> SELECT E.EmployeeID, FirstName, LastName, Title, Salary FROM Employees E INNER JOIN Addresses A ON E.EmployeeID = A.EmployeeID WHERE A.State = 'CA' </pre>

Question #	Rows	SQL
Question 5	13	<pre> SELECT EmployeeID, FirstName, LastName, Title, Salary FROM Employees WHERE EmployeeID NOT IN (SELECT EmployeeID FROM Addresses WHERE State = 'WA') </pre>
Question 6	92	<pre> SELECT FirstName, LastName, Title, Salary FROM Employees WHERE Salary > ALL (Select Salary FROM Employees WHERE ManagerID = 41) ORDER BY SALARY </pre>
Question 7	6	<pre> SELECT FirstName, LastName, Title, Salary FROM Employees WHERE Salary < ANY (Select Salary FROM Employees WHERE ManagerID = 41) ORDER BY SALARY </pre>
Question 8	31	<pre> SELECT FirstName, LastName, Title, Salary FROM Employees E1 WHERE Salary = (SELECT MAX(Salary) FROM Employees E2 WHERE E2.ManagerID = E1.ManagerID) ORDER BY SALARY </pre>
Question 9	2	<pre> SELECT EMPLOYEEID, FirstName, LastName FROM Employees E WHERE EXISTS (SELECT * FROM ADDRESSES A WHERE E.EmployeeID = A.EmployeeID AND State = 'CA') </pre>
Question 10	13	<pre> SELECT EMPLOYEEID, FirstName, LastName FROM Employees E WHERE NOT EXISTS (SELECT * FROM ADDRESSES A WHERE E.EmployeeID = A.EmployeeID AND State = 'WA') </pre>

Question #	Rows	SQL
Question 11	54	<pre> SELECT FirstName, LastName, Title FROM Employees where gender = 'M' and Salary > ANY (SELECT Salary FROM Employees WHERE Gender = 'F') ORDER BY Salary </pre>
Question 12	44	<pre> SELECT FirstName, LastName, Title, Salary FROM Employees WHERE Salary > ANY (SELECT Salary FROM Employees WHERE Title = 'Design Engineer') ORDER BY Salary </pre>
Question 13	95	<pre> SELECT EmployeeID, FirstName, LastName, Title, Salary FROM Employees WHERE EmployeeID NOT IN (SELECT EmployeeID FROM EmployeesDependents) </pre>
Question 14	53	<pre> SELECT FirstName, LastName, Title, SickLeaveHours FROM Employees WHERE SickLeaveHours > (Select AVG(SickLeaveHours) FROM Employees) </pre>
Question 15	27	<pre> SELECT FirstName, LastName, Title, Salary, ManagerID FROM Employees E1 WHERE Salary = (SELECT MIN(Salary) FROM Employees E2 WHERE E2.ManagerID = E1.ManagerID) ORDER BY ManagerID </pre>

Chapter 10: More Functions

Exercise Answers

Question #	Rows	SQL
Question 1	102	SELECT FirstName, LEFT(FirstName,3), LEN(FirstName) FROM Employee
Question 2	102	SELECT FirstName + ' ' + ISNULL(MiddleName, '') + ' ' + LastName FROM Employee
Question 3	102	SELECT UPPER(FirstName) FirstName, LOWER(LastName) LastName FROM Employee
Question 4	7	SELECT FirstName, LastName FROM Employee WHERE CHARINDEX('er', FirstName) > 0
Question 5	21	SELECT AddressLine1, CASE WHEN CHARINDEX('Drive', AddressLine1) > 0 then Addressline1 WHEN CHARINDEX('Dr.', AddressLine1) > 0 then REPLACE (AddressLine1, 'Dr.', 'Drive') When CHARINDEX('Dr', AddressLine1) > 0 then REPLACE (AddressLine1, 'Dr', 'Drive') END FROM Addresses WHERE CHARINDEX ('Dr', AddressLine1) > 0
Question 6	102	SELECT FirstName, SUBSTRING(FirstName,2,3) FROM Employees
Question 7	102	SELECT FirstName, LastName, Salary, Salary * .15 'No Conversion', CONVERT(decimal(10,2), Salary * .15) Bonus FROM Employees
Question 8	102	SELECT FirstName, LastName, CONVERT(VARCHAR,BirthDate,101) BirthDate FROM Employees

Question #	Rows	SQL
Question 9	102	<pre> SELECT FirstName, LastName, HireDate, DATEPART(MONTH,HireDate) Month, DATEPART(DAY,HireDate) Day, DATEPART(YEAR,HireDate) Year FROM Employees </pre>
Question 10	3	<pre> SELECT FirstName, LastName, Title, Salary, Salary * .05 'No Conversion', CONVERT(decimal(10,2), Salary * .05) Bonus FROM Employees WHERE Title = 'Design Engineer' </pre>
Question 11	100	<pre> SELECT SickLeaveHours, 20-sickleavehours 'Resulting Value', ABS (20-sickleavehours) 'Absolute Value' FROM Employees WHERE SickLeaveHours > 20 ORDER BY SickLeaveHours </pre>
Question 12	1	<pre> SELECT CONVERT(Varchar(10), GETDATE(),101) 'Current date' </pre>
Question 13	102	<pre> SELECT FirstName, LastName, Hiredate, DATEDIFF(YEAR,HireDate,GETDATE()) 'YEARS' FROM Employees </pre>
Question 14	6	<pre> SELECT Distinct Groupname, CASE GroupName WHEN 'Executive General and Administration' THEN 'Top Management' WHEN 'Research and Development' THEN 'Specialists' WHEN 'Manufacturing' THEN 'Laborers' ELSE 'Middle Management' END 'Ranks' FROM Departments </pre>
Question 15	102	<pre> SELECT CASE State WHEN 'CA' THEN 'Canada' + ' ' WHEN 'UK' THEN 'United Kingdom' + ' ' ELSE 'United States' END 'Country' FROM Addresses ORDER BY 'Country' </pre>

Chapter 11: View and Stored Procedures

Exercise Answers

Question #	Rows	SQL
Question 1	N/A	<pre> CREATE VIEW v_FormalNames AS SELECT CASE Gender WHEN 'F' THEN 'Ms. ' ELSE 'Mr. ' END + CASE WHEN MiddleName IS NULL THEN FirstName + ' ' + LastName ELSE FirstName + ' ' + MiddleName + ' ' + LastName END 'FullName', AddressLine1, AddressLine2, City, State, Zip1, ZIP2 FROM Employees E INNER JOIN Addresses a on E.EmployeeID = A.EmployeeID </pre>
Question 2	N/A	<pre> ALTER VIEW v_FormalNames AS SELECT CASE Gender WHEN 'F' THEN 'Ms. ' ELSE 'Mr. ' END + CASE WHEN MiddleName IS NULL THEN FirstName + ' ' + LastName ELSE FirstName + ' ' + MiddleName + ' ' + LastName END 'FullName', DATEDIFF(YEAR,BirthDate,GETDATE()) Age, AddressLine1, AddressLine2, City, State, Zip1, ZIP2 FROM Employees E INNER JOIN Addresses a on E.EmployeeID = A.EmployeeID </pre>

Question #	Rows	SQL
Question 3	N/A	<pre> ALTER VIEW v_FormalNames AS SELECT CASE Gender WHEN 'F' THEN 'Ms. ' ELSE 'Mr. ' END + CASE WHEN MiddleName IS NULL THEN FirstName + ' ' + LastName ELSE FirstName + ' ' + MiddleName + ' ' + LastName END 'FullName', DATEDIFF(YEAR,BirthDate,GETDATE()) Age, AddressLine1, AddressLine2, City, State, Zip1, ZIP2, DepartmentName FROM Employees E INNER JOIN Addresses a on E.EmployeeID = A.EmployeeID INNER JOIN EmployeesDepartments H ON E.EmployeeID = H.EmployeeID INNER JOIN Departments D ON H.DepartmentID = D.DepartmentID </pre>
Question 4	N/A	<pre> CREATE PROCEDURE sp_EmployeesTitleDepartment AS SELECT FirstName, LastName, Title, DepartmentName FROM Employees E INNER JOIN Addresses a on E.EmployeeID = A.EmployeeID INNER JOIN EmployeesDepartments ED ON E.EmployeeID = ED.EmployeeID INNER JOIN Departments D ON ED.DepartmentID = D.DepartmentID </pre>
Question 5	N/A	<pre> ALTER PROCEDURE sp_EmployeesTitleDepartment (@DepartmentID int) AS SELECT FirstName, LastName, Title, DepartmentName FROM Employees E INNER JOIN Addresses A on E.EmployeeID = A.EmployeeID INNER JOIN EmployeesDepartments ED ON E.EmployeeID = ED.EmployeeID INNER JOIN Departments D ON ED.DepartmentID = D.DepartmentID WHERE D.DepartmentID = @DepartmentID </pre>

Question #	Rows	SQL
Question 6	N/A	<pre>CREATE PROCEDURE sp_Employees (@Title varchar(50), @Gender char(1)) AS SELECT FirstName, LastName, Title, Gender FROM Employee E WHERE Title = @Title AND Gender = @Gender EXEC sp_Employees 'Tool Designer', 'M'</pre>
Question 7	N/A	<pre>CREATE PROCEDURE sp_Addresses (@zip char(5)) as SELECT * FROM Addresses WHERE Zip1 = @zip EXEC sp_Addresses '55802'</pre>
Question 8	N/A	<pre>Create PROCEDURE sp_ShowBonus(@Percent decimal(3,2)) as SELECT FirstName, LastName, Salary, CONVERT(DECIMAL(10,2), Salary * @Percent) Bonus FROM Employee EXEC sp_ShowBonus .05</pre>
Question 9	N/A	<pre>CREATE VIEW v_EmpBirthYear AS SELECT FirstName, LastName, DATEPART(YEAR,BirthDate) 'Birth Year' FROM Employees</pre>
Question 10	N/A	<pre>CREATE VIEW v_HireDate AS SELECT FirstName, LastName, CONVERT(VARCHAR(30), HireDate, 109) HireDate from Employee</pre>
Question 11	N/A	<pre>CREATE PROCEDURE sp_EmployeeSearch (@SearchTerm varchar(10)) AS SELECT FirstName, LastName, Title FROM Employee WHERE FirstName LIKE '%' + @SearchTerm + '%' OR LastName LIKE '%' + @SearchTerm + '%' EXEC sp_EmployeeSearch Eric</pre>

Question #	Rows	SQL
Question 12	N/A	<pre> CREATE PROCEDURE sp_SalaryBetween (@GreaterThan int, @ LessThan int) AS SELECT FirstName, LastName, Title, Salary FROM Employee WHERE Salary BETWEEN @GreaterThan AND @LessThan ORDER BY Salary EXEC sp_SalaryBetween 20000, 30000 </pre>
Question 13	N/A	<pre> CREATE PROCEDURE sp_GolfInfo (@SearchTerm varchar(10)) AS SELECT M.[First], M.[Last], G.CartID, G.Make, G.Color, G.[Year] FROM Members M LEFT OUTER JOIN GolfCarts G ON M.MemberID = G.MemberID WHERE M.[First] LIKE '%' + @SearchTerm + '%' OR M.[Last] LIKE '%' + @SearchTerm + '%' EXEC sp_GolfInfo Paula </pre>
Question 14	N/A	<pre> CREATE PROCEDURE sp_StateCount (@State char(2)) AS SELECT COUNT(*) 'Number of employees in state' FROM [Address] WHERE @State = [State] EXEC sp_StateCount WA </pre>
Question 15	N/A	<pre> CREATE PROCEDURE sp_VolunteerSearch (@First varchar(12), @ Last varchar(12)) AS SELECT [First], MI, [Last], Sex FROM Volunteers WHERE [First] = @First AND [Last] = @Last EXEC sp_VolunteerSearch Kevin, Brown </pre>