```
# All the codes and homeworks for Madison hospital database
 3
     /*Sagar Kalauni*/
    /* Lab2-*/
 4
 5
     /*1.Create a table named prod table. This table should have two columns named prod id
     and prod description. These columns should be defined to store the following type of
     data, respectively: prod id stores numeric data that is a maximum of 3 characters in
     size; prod description stores variable character data that is a maximum of 25 characters
     in size.*/
     CREATE TABLE prod table (
 6
 7
         Prod id
                             NUMBER (3),
         prod description
                             VARCHAR2 (25)
9
10
     /*Table has been created*/
11
12
     /*2.Insert two rows into the test table*/
     INSERT INTO prod_table VALUES (1, 'Wheel');
INSERT INTO prod_table VALUES (2, 'Nuts and Bolts');
13
14
1.5
     /*Two records have been inserted into the 'prod table'.*/
16
17
18
     /*3.Use the DESCRIBE command to describe the prod table. */
19
    DESC prod table;
20
     /*The resulting output is displaying the 'prod table' along with its columns and their
     respective data types.*/
21
22
     /*4.Use the following SELECT command to display the rows in the prod table. */
23
     SELECT * FROM prod table;
24
     /*The output encompass all columns of the 'prod table.'*/
2.5
26
    /*5.Use the DROP command to drop the prod table. */
27
    DROP TABLE prod table;
28
    /*The table has been successfully dropped from our database.*/
29
30
    /*6.Create the deptBusiness table described below: */
31
     CREATE TABLE DeptBusiness (
32
         DepartmentNumber
                                         NUMBER (4)
33
             CONSTRAINT PK DeptBusiness PRIMARY KEY,
34
                                         VARCHAR2 (25)
         DepartmentName
35
             CONSTRAINT NN DepartmentNamee NOT NULL,
                                                           /* Creating unique constraint
             name*/
36
         ManagerID
                                          CHAR (5)
37
38
     /*A new table named 'DeptBusiness' has been successfully created in our database.*/
39
40
     /*7.Add the data shown below to the deptBusiness table. Do not define any foreign
     keys. Leave the ManagerID column values as NULL. */
41
     INSERT INTO DeptBusiness (DepartmentNumber, DepartmentName)
42
     VALUES (1106, 'CMIS');
43
44
     INSERT INTO DeptBusiness (DepartmentNumber, DepartmentName)
4.5
     VALUES (1105, 'Accounting');
46
47
     INSERT INTO DeptBusiness (DepartmentNumber, DepartmentName)
48
     VALUES (1100, 'Production');
49
50
     INSERT INTO DeptBusiness (DepartmentNumber, DepartmentName)
51
     VALUES (1102, 'Economic Finance');
52
     /*All the provided values have been successfully added to the 'DeptBusiness' table.*/
53
54
     /*8.a. COMMIT your row insertions in the deptBusiness table. b. Try to INSERT the data
     for department number 1106 again in the deptBusiness table. Did Oracle accept it? */
5.5
     COMMIT;
56
     /*Upon the completion of the commit operation, all changes have been successfully stored
     and applied.*/
57
58
     INSERT INTO DeptBusiness (DepartmentNumber, DepartmentName)
59
     VALUES (1106, 'CMIS');
     /*value is not accepted saying error: Unique constraint violated*/
60
```

```
61
 62
      /*9.Use the following SELECT command to display the rows in the deptBusiness table...*/
 63
      SELECT *
      FROM DeptBusiness;
 64
 65
      /*The output displays the 'DeptBusiness' table with all the provided data entries
      effectively populated within it.*/
 66
 67
      /*10.Delete the row for department number 1 from the deptBusiness table.
 68
     DELETE FROM DeptBusiness
 69
         WHERE DepartmentNumber= 1106;
 70
      /*A single record has been removed from our 'DeptBusiness' table.*/
 71
 72
 73
      /*11.Repeat the SELECT statement in question #9 above to verify your record has been
      deleted*/
 74
      SELECT *
 75
      FROM DeptBusiness;
 76
      /*Output clearly shows that in the DeptBusiness table now we have no longer the
      observation having department number 1106, which have been deleted in the last SQL
      command*/
 77
 78
 79
      /*12.Assume that the deletion of your row was an error. Execute the ROLLBACK command
      (SQL> ROLLBACK;) to undelete your row. Use the SELECT * statement again to verify that
      your row has been restored to the table. */
 80
      ROLLBACK;
 81
      /*This SQL command effectively reverses the impact of our previous SQL command, which
      involved deleting one row from the 'DeptBusiness' table.*/
 82
 8.3
      SELECT *
 84
     FROM DeptBusiness;
 85
     /*Output is clearly showing that the deleted row has been sucessfully retrived back*/
 86
      /*13. The name for 'Production' department got changed to 'Operations'. Update the
 87
      DepartmentName column of this change accordingly. ALso Repeat the SELECT statement in
      question #9 above to verify your output. */
      UPDATE DeptBusiness
 88
 89
          SET DepartmentName = 'Operations'
 90
          WHERE DepartmentName= 'Production';
      /*The 'DepartmentName' has been updated from 'Production' to 'Operations'*/
 91
 92
 93
     SELECT *
 94
     FROM DeptBusiness;
 95
     /*The modified department name can be observed in the output.*/
 96
 97
      /*14.Alter the deptBusiness table to add a column that will be used to store the
      department phone. Name this column DepartmentPhone and use an appropriate NUMBER
      datatype specification. You do not need to store any data to this column. Also Repeat
      the SELECT statement in question #9 above to verify your output. */
 98
      ALTER TABLE DeptBusiness ADD (DepartmentPhone NUMBER (10));
 99
      /*A new column named 'DepartmentPhone' has been successfully added to the 'DeptBusiness'
     table.*/
100
101
      SELECT *
102
      FROM DeptBusiness;
103
      /*Output clearly shows newly added column 'DepartmentPhone' in the table DeptBusiness*/
104
105
106
     /*15.Use the DROP command to drop the DeptBusiness table. Use the SELECT statement given
      in question #9 above to display the deptBusiness table.
107
      DROP TABLE DeptBusiness;
108
      /*Table has been sucessfully droped out from out database*/
109
110
      SELECT *
111
     FROM DeptBusiness;
112
     /*yes,error message appears, Since Table was already droped out form the database so the
      output is: table does not exist*/
113
      /*THE END*/
114
```

```
115
     116
     117
118
119
     /*Sagar Kalauni*/
     /*Lab4-Kalauni*/
120
121
122
     /*Q NO. 1) Write a query that will select all columns from the Specialty table without
     using the (*) in your guery. You may wish to use the DESCRIBE command to examine the
     structure of the Specialty table*/
     /*First let's look at all the columns in the Specialty Table using DESC command */
123
124
     DESC Specialty;
125
126
     /*Manually selecting all columns of the Specialty table*/
127
     SELECT SpecialtyID, Title, AwardedBy
     FROM Specialty;
128
129
     /*OBSERVATION; - We can see Specialty table with all its columns*/
130
131
     /*Q NO.2) Your manager wonders what types of employee titles are tracked in the Employee
     table. Produce a sample listing of the titles of employees at the hospital that does
     not include any duplicate rows. */
132
     /*Using distinct command to select the all non duplicated titles in the employee table*/
     SELECT distinct title
133
134
     FROM Employee;
     /*OBSERVATION:- So There are 10 different type of employee titles in the employee table*/
135
136
137
     /*Q NO. 3) Execute a query that will display all treatment dates for patient 100302.
     Include the patientID, employeeID, and date treated.*/
138
     /*To fully show column name and make our output infromative, formating done initially*/
139
     COLUMN PatientID
                       FORMAT
                               A10;
140
     COLUMN EmployeeID
                       FORMAT
                                A12:
     COLUMN DateTreated FORMAT
141
142
     SELECT PatientID, EmployeeID, DateTreated
143
     From Treatment
144
     WHERE PatientID='100302';
145
     /*OBSERVATION:- All required data for patient with patientid=100302*/
146
147
     /*Q NO.4) Execute a query that lists all the male nurses - i.e., employees with a job
     title that includes the degree 'R.N..' List each employee's last name, first name,
     title, and gender. Format your columns so that lastName is 12 characters, firstName is
     12 characters, title is 5 characters, and gender is 6 characters.*/
148
     /*M- Male as a gender*/
149
     COLUMN LastName FORMAT
                             A12;
150
     COLUMN FirstName FORMAT
                             A12;
151
     COLUMN Title
                    FORMAT
                             A5;
152
     COLUMN Gender
                    FORMAT
                            A6;
153
     SELECT LastName, FirstName, Title, Gender
154
     FROM Employee
     WHERE Title LIKE '%R.N..%' AND Gender='M';
155
156
157
     /*Q No.5) Produce a listing that will only display patients from Alton or Collinsville.
     The result table should display the first name and last name of these patients as well
     as the city they are from. Sort the report by city. Format first name and last name so
     they are 12 characters wide each.*/
158
     /*While looking for city in where condition, we should give the city name as they are in
     the table, because it is case sensetive*/
     COLUMN LastName FORMAT A12;
159
     COLUMN FirstName FORMAT A12;
160
161
     SELECT FirstName, LastName, City
162
     FROM Patient
163
     WHERE City IN ('Alton', 'Collinsville')
164
     ORDER BY City;
     /*OBSERVATION:- There are 21 patients from city Alton and Collinsville combinedly */
165
166
167
     /*Q NO.6) Execute a query that will display all equipment with an original cost below
     $500, AND either have 10 or more items in stock (quantityAvailable) OR are used in
```

project 8. List the equipment description, original cost, quantity available, and

```
project number. Format your columns so that the output fits on one row. Format your
     columns so the output fits on one row.*/
168
     /*First looking at the table and resizing the format*/
169
     COLUMN Description FORMAT A12;
     COLUMN "Orginal Cost" FORMAT 9999.99;
170
171
     COLUMN "Quantity Available" FORMAT 9999;
172
     COLUMN "Project Number" FORMAT 99;
173
     SELECT Description, OriginalCost "Orginal Cost", QuantityAvailable "Quantity Available",
     ProjectNumber "Projec Number"
174
     FROM Equipment
175
     WHERE OriginalCost<500 AND (QuantityAvailable>=10 OR ProjectNumber=8);
176
     /*OBSERVATION: - Output fits perfectly*/
177
178
     /*Q NO.7) The CFO needs a report to justify standard charges to the State Health
     Department. The report should contain the description, standard charge, and category ID.
     Sort the report by categoryID and then by standard charge. Use the appropriate command
     to limit the output column width for the description to 30 characters. The report should
     be sorted first by categoryID and then by standard charge with the highest standard
     charge for each category appearing first.*/
179
     COLUMN Description A30;
180
     SELECT Description, StandardCharge, CategoryID
181
     FROM Service
182
     ORDER BY CategoryID, StandardCharge DESC;
183
     /*OBSERVATION:-
184
     Nicely shorted table, with 105 rows*/
185
     186
     187
     188
189
     /*Sagar Kalauni*/
190
     /*Lab5-Kalauni*/
191
     /\mathrm{^{\star}Q} No.1)The charge nurse wants to see the medications that have instructions for child
192
     dosages and have a quantity on hand of less than 1,000. Instructions indicating if the
     medicine is for children can be found in the dosage field of the Medicine table. The
     term child may appear anywhere in this field. Create a list that includes the common
     name and scientific name of the medication. Restrict common name to 15 characters and
     scientific names to 20 characters.*/
193
     COLUMN Commonname FORMAT A15;
194
     COLUMN Commonname FORMAT A20;
195
     SELECT Commonname, ScientificName
196
     FROM Medicine
197
     WHERE Dosage LIKE '%child%' AND QuantityOnhand < 1000;
198
     /*OBSERVATION:- So the required medication name is Atarax(commonname)*/
199
200
     /*Q.NO2) The HR director of the hospital has learned that the average monthly salary of
     employees is about $15,000. She would like a report of all employee names who earn more
     than $10,000 a month and less than $20,000 monthly. Use the BETWEEN operator. Sort by
     salary. Include the first name and last name of the employee (restrict both names to 12
     characters) as well as the salary.*/
201
     COLUMN "First Name" FORMAT A12;
     COLUMN "Last Name" FORMAT A12;
202
203
     COLUMN "moSalary" FORMAT $99,999;
204
     SELECT FirstName "First Name", LastName "Last Name", Salary "moSalary"
205
     FROM Employee
206
     WHERE Salary BETWEEN 10000 AND 20000
207
     ORDER BY Salary;
208
     /*OBSERVATION:- So there are 8 employees whose salary is in between $10,000 to $20,000*/
209
210
     /*Q NO.3) There has been a surge of parents requesting private rooms for their children
     who have been admitted for surgery. Provide a list of beds available in the following
     pediatric rooms: PED101 - PED105 inclusive. Use the IN command. The room number,
     bedtype, and availability should be shown in the report. Use meaningful column titles.*/
211
     /*To make output result more informative and clear, formating done*/
     COLUMN "Bed Number" FORMAT A12;
212
     COLUMN "Bed Type" FORMAT A10;
213
214
     COLUMN "Bed Availability" FORMAT A18;
```

```
SELECT RoomNumber "Bed Number", BedType "Bed Type", Availability "Bed Availability"
215
216
      FROM Bed
217
      WHERE RoomNumber IN ('PED101', 'PED102', 'PED103', 'PED104', 'PED105');
218
      /*OBSERVATION:- All required information of Pediatric Rooms for 101 to 105*/
219
220
      /*Q NO.4) The director of HR would like to implement a process of sending birthday cards
      to the children of employees. She is requesting a report that contains the first names
      and birthdates of all sons and daughters of employees. You must use the IN command.*/
      SELECT Name "First Name", BirthDate
221
222
      FROM Dependent
223
      WHERE RelationshipToEmployee IN ('SON', 'DAUGHTER');
      /*OBSERVATION:- Table showing firstname and birthday of son's and daughter's of
224
      employees*/
225
226
      /*Q NO.5) Execute a query that will display all employees whose last name contains the
      lower case letter 'o' except for the second character (i.e., the second character can be
      anything but 'o'. List each employee's first and last name. Use meaningful column
      titles.*/
      SELECT FirstName "First Name", LastName "Last Name"
227
      FROM Employee
228
229
      WHERE LastName LIKE '%0%' AND LastName NOT LIKE ' 0%';
230
      /*OBSERVATION:- So there are 7 employees who have o in their lastname but not in the
      second position*/
231
232
      /*Q NO.6) Execute a query that lists all employee table rows that contain a null value in
      the salary column. List each employee's last name and supervisor identifying number. Use
      meaningful column titles. Limit column width so a line fits on a single row.*/
233
      COLUMN "Last Name" FORMAT A10;
234
      COLUMN "Supervisor Identifying Number" FORMAT A30;
235
      SELECT LastName "Last Name", SupervisorID "Supervisor Identifying Number"
236
      FROM Employee
237
      WHERE Salary IS NULL;
238
      /*OBSERVATION:- So there are 2 employees whose salary is null*/
239
240
      /*Q NO.7) Execute a query that will display all patients whose first name begins with the
      same letter as your first name. List each patient's first name and last name. Format the
      output so the full name appears on one line. Provide meaningful column titles. If your
      last name begins with the X, list patients whose first name begins with the same letter
      as your middle name. Use meaningful column titles.*/
241
      /*As my first name is Sagar*/
242
      COLUMN "First Name" FORMAT A12;
243
      COLUMN "Last Name" FORMAT A12;
244
      SELECT FirstName "First Name", LastName "Last Name"
245
      FROM Patient
246
      WHERE FirstName LIKE 'S%';
247
248
      /*As my lastname is Kalauni, and I do not have middle name, below I am searching for
      employee whose first name begin with first character of my last Name*/
249
      SELECT FirstName "First Name", LastName "Last Name"
250
      FROM Patient
251
      WHERE FirstName LIKE 'K%';
252
253
      /*Q NO.8) Execute a query that will display each employee's last name, annual salary,
      monthly salary, and weekly salary. The list should only include employees with a weekly
      salary that is less than $1,000.00. Label the column names for annual salary, monthly
      salary, and weekly salary as Annual, Monthly, and Weekly, respectively. Sort the output
      by employee last name. Format the columns named Annual, Monthly, and Weekly as
      $999,999.99. Be careful in how you compute the weekly salary! You may assume 4 weeks to
      a month. You can assume the field Salary represents the monthly salaries of employees.
      Use meaningful column titles*/
      COLUMN "Annual" FORMAT $999,999.99;
254
255
      COLUMN "Monthly" FORMAT $999,999.99;
256
      COLUMN "Weekly" FORMAT $999,999.99;
257
      SELECT LastName "Last Name", Salary*12 "Annual", Salary "Monthly", Salary/4 "Weekly"
258
      FROM Employee
259
      WHERE Salary/4 < 1000
260
     ORDER By LastName;
261
     /*The End*/
262
```

```
263
264
265
266
     267
     268
269
     /*Sagar Kalauni*/
270
     /* Lab6-Kalauni*/
271
     /*Q.NO. 1) A manager from the human resources department needs you to write a query to
272
     count the number of employees of the company that are nurses (either Title = 'R.N.' OR
     Title = 'L.P.N.'. Label the output column Number of Nurses. */
     /*OBSERVATION:- There are 2 Nurses*/
273
     SELECT count(*) "Number of Nurses"
274
275
     FROM Employee
276
     WHERE Title in ('R.N', 'L.P.N.');
277
278
     /*Q.NO.2)Accountants working on the company's annual budgeting process need to know the
     average cost of the equipment being used on projects (originalCost) and the sum of all
     equipment costs. The information is stored in the Equipment table. The result table
     should have two columns based on a single query. Label the columns Average Equipment
     Cost and Total Equipment Cost. Format the output as $99,999.99. */
279
     /*OBSERVATION:- Average Cost is $2,019.85 and Total cost is $18,178.67*/
     COLUMN "Average Equipment Cost" FORMAT $99,999.99;
280
281
     COLUMN "Total Equipment Cost" FORMAT $99,999.99;
282
     SELECT AVG (OriginalCost) "Average Equipment Cost", SUM (OriginalCost) "Total Equipment
     Cost"
     FROM Equipment;
2.83
284
285
     /*Q>NO.3) The BirthDate column in the dependent table stores date of birth information
     for dependents of employees of the company. Write a query to display the date of birth
     of the oldest dependent listed in the table. No special output column label is
286
     /*Used Minimum to find the oldest dependent*/
287
     SELECT MIN (BirthDate)
288
     FROM Dependent;
289
     /*Q.NO.4)Write a query to provide the Executive Director with the total hours worked per
290
     project. Use the ProjectNumber and HoursWorked columns from the ProjectAssiginment table
     to obtain the project numbers and hours worked, respectively. Label the two columns
     Project Number and Total Hours respectively. Sort by project number. Format the output
     for the Total Hours column as 999.99.*/
     /*OBSERVATION:- Nice table showing Project Number and Total hours as output*/
291
     COLUMN "Total Hours" FORMAT 999.99;
292
     SELECT ProjectNumber "Project Number" ,SUM(HoursWorked) "Total Hours"
293
294
     FROM ProjectAssignment
295
     GROUP BY ProjectNumber
296
     ORDER BY ProjectNumber;
297
     /*Q.NO.5) The government reporting regulation also requires a report of the count of all
298
     employees who are NOT M.D.s. M.D. could appear anywhere in the title. Write a query that
     will produce a result table with two columns labeled Title and Non M.D. Employees.
     Format the Title column so it is 20 characters.*/
     /*Where clause has eliminated any who has something title like M.D*/
300
     /*OBSERVATION:- So there are total of 11 non M.D Employees*/
     COLUMN "Title" FORMATNBSPA20;
301
302
     SELECT Title "Title", COUNT (Title) "NON M.D Employees"
303
     FROM Employee
     WHERE Title NOT LIKE '%M.D%'
304
305
     GROUP BY Title;
306
307
     /*Q.NO.6) The CEO would like a report with PatientIDs and the total amount of treatment
     charges they have had. The resulting report should have two columns: Patient and Total
     Charges. The report should be listed in Total Charges order with the patients with the
     lowest Total Charges at the top. The CEO wants to see only those patients whose total
     charges are less than $350. */
308
     /*OBSERVATION:- Output is table with patient and their total charge*/
```

```
309
     SELECT PatientID "Patient", SUM(ChargeAmount) "Total Charges"
310
     FROM Treatment
311
     GROUP BY PatientID
312
     HAVING SUM (ChargeAmount) < 350
313
     ORDER BY SUM (Charge Amount);
314
315
     /*Q.NO.7) Modify the query written for question 6. Now the CEO would like to see average
     charges for treatments each patient is responsible for. But, he does not want treatment
     charges of under $500 considered in the average. After averaging, the report should
     show only those patients whose average treatment charges are greater than $500. */
     /*Where condition eliminates rows having chargeamount less then or equal 500*/
317
     /*OBSERVATION:- Output is table with patient and their average charge*/
     SELECT PatientID "Patient", AVG (ChargeAmount) "average charges"
318
319
     FROM Treatment
320
     WHERE ChargeAmount>=500
321
     GROUP BY PatientID
322
     HAVING AVG(ChargeAmount)>500
323
     ORDER BY SUM(ChargeAmount);
324
325
     /*
                                 THE END
                                                                     * /
326
327
328
329
     330
     331
     /*Sagar Kalauni*/
332
333
     /* Lab7-Kalauni*/
334
335
     /*Q.NO.1) The company's vice president for project management needs a listing of
     employees who have received specialties. The result table should list the employee name
     (last name first, then first name) and their associated specialty title and the date
     they received the specialty. Format the columns so output lines are on a single row.
     The column header for the Specialty title should be 'Specialty Name'. */
336
     /*OBSERVATION:- So 21 employees has recived Specialities */
337
     COLUMN "Employee Name" FORMAT A24;
338
     COLUMN "Specialty Name" FORMAT A27;
339
     COLUMN "Date Recived" FORMAT A12;
340
     SELECT LastName||', '||FirstName "Employee Name" , s.Title "Specialty Name", DateReceived
      "Date Recived"
341
     FROM Employee e JOIN EmployeeSpecialty es ON (e.EmployeeID=es.EmployeeID) JOIN Specialty
     s ON (es.SpecialtyID=s.SpecialtyID);
342
343
     /*Q.NO.2) The hospital pharmacist would like a report listing patient first and last
     names (concatenated) who have been prescribed Valium. The result table should have just
     two columns, Patient Name and CommonName. Use relevant column headers and format
     commonName so it is 10 or fewer characters.*/
344
     /*OBSERVATION: - Patient Name who are Prescribed Valium*/
345
     COLUMN "CommonName" FORMAT A10;
346
     SELECT LastName||', '||FirstName "Patient Name", CommonName "CommonName"
347
     FROM patient p JOIN Prescription pr ON (p.PatientID=pr.PatientID) JOIN Medicine m ON (pr.
     MedicineCode=m.MedicineCode)
348
     WHERE Commonname='Valium';
349
350
     /*Q.NO.3) The company's vice president for project management needs a listing of
     employees assigned to projects. The result table should list the LastName and FirstName
     column values (concatenated into one column) and their ProjectTitle and HoursWorked
     (from the projectAssignment table). The result table should only list employees
     assigned to a project that have worked on the project more than 10 hours. Sort results
     by employee last name and then by project number. Use alias names for the table names.
     Give each column an appropriate column name. HoursWorked has a decimal.*/
     /*OBSERVATION:- Nicely formated table with employee name, their project title and hours
351
     worked*/
352
     COLUMN "Hours Worked" FORMAT 99.9;
     SELECT LastName||', '||FirstName "Employee Name", ProjectTitle "Project Title",
353
     HoursWorked "Hours Worked"
354
     FROM Employee e JOIN ProjectAssignment pa ON (e.EmployeeID=pa.EmployeeID) JOIN Project p
```

```
ON (pa.ProjectNumber=p.ProjectNumber)
355
      WHERE HoursWorked >10
356
      ORDER BY LastName, p.ProjectNumber;
357
358
      /*Q.NO4) Produce a guery that will list all employee last names, employee gender,
      dependent names and dependent gender where the employee's have dependents of the same
      gender. Also list the dependent relationship. The columns needed in the result table
      are LastName, employee. Gender, dependent. Name, dependent. Gender, and
      RelationshipToEmployee. Use the employee and dependent tables. Use the FROM clause to
      join the tables. Use the column names and formats shown below. Sort the result table
      by LastName.
     COLUMN "Employee" FORMAT A10;
359
360
      COLUMN "Emp Gender" FORMAT A10;
      COLUMN "Dependent" FORMAT A10;
361
      COLUMN "Dep Gender" FORMAT A10;
362
363
      COLUMN "Relationship" FORMAT A12; */
364
      /*OBSERVATION:- Nicely formated table with infromation of employee, dependent their
      relation and gender */
365
      COLUMN "Employee" FORMAT A10;
366
      COLUMN "Emp Gender" FORMAT A10;
367
      COLUMN "Dependent" FORMAT A10;
368
      COLUMN "Dep Gender" FORMAT A10;
369
      COLUMN "Relationship" FORMAT A12;
370
      SELECT LastName "Employee", employee.Gender "Emp Gender", dependent.Name "Dependent",
      dependent.Gender "Dep Gender", RelationshipToEmployee "Relationship"
371
      FROM employee JOIN dependent ON (employee.EmployeeID=dependent.EmployeeID)
372
      WHERE employee. Gender=dependent. Gender
373
      ORDER BY LastName;
374
375
      /*Q.NO.5) The director of Pediatric Nursing requires a report listing each patient name,
      their bedNumber and their roomNumber for pediatric patients only. You will need to
      figure out how to determine which rooms are for pediatric patients and there is more
      than one way to do this. The result tale should display the patient's first and last
      names concatenated, their bednumber, and roomnumber. Assign appropriate column headers
      and format so the columns fit on a single line.*/
376
      /*OBSERVATION:- Name and bed number and room no. of the patient in pediatric*/
      COLUMN "Patient Name" FORMAT A20;
377
378
      SELECT p.FirstName||' '||p.LastName "Patient Name", bedNumber "Bed Number", roomNumber
      "Room Number"
379
      FROM Patient p JOIN Bed b
380
      ON (p.bedNo = b.bedNumber) JOIN Prescription pr
381
      ON (pr.patientID = p.patientID) JOIN Employee e
382
      ON (pr.employeeID = e.employeeID) JOIN Department d
383
      ON (e.departmentNumber = d.departmentNumber)
384
      WHERE departmentName = 'Pediatrics-Gynecology';
385
386
      /*Q.NO.6) Management is expecting to start several new projects in the near future. A
      list of employees who are not currently assigned to a project is needed. This will
      provide management with a list of employees who are potentially available to be assigned
      to projects. The result table should list the LastName and FirstName column values
      (concatenated into one column) from the employee table. Sort the output by LastName and
      FirstName. Hint: You will need an OUTER join.*/
387
      /*OBSERVATION:- So there are 13 employee who are not assigned to any project currently*/
388
      SELECT LastName||', '||FirstName "Employee Name"
389
      FROM Employee e LEFT OUTER JOIN ProjectAssignment pa ON (e.EmployeeID=pa.EmployeeID) LEFT
       OUTER JOIN Project p ON (pa.ProjectNumber=p.ProjectNumber)
390
      WHERE pa.Projectnumber IS NULL
391
      ORDER BY e.LastName, e.FirstName;
392
393
      /*Q.NO.7) The head of Facilities Management needs a list of all roomnumbers and the
      patients currently in each room. The result table should include ALL room numbers in
      the hospital. If a patient is currently in the room, their name should be shown in
      firstName lastName order and should be concatenated in a single column. This will allow
      the Facilities Management team to clean rooms that are currently unoccupied.*/
394
      /*OBSERVATION:- Nicely formated table showing bed number and the patient name if
      occupied*/
395
      SELECT RoomNumber "Room Number", FirstName | | ' ' | | LastName "Patient Name"
396
      FROM Bed b LEFT OUTER JOIN Patient p ON (p.Bedno=b.BedNumber);
397
```

```
/*Q.NO.8) Produce a listing of number of employees who have earned each specialty. The
      result table should list the Specialty Name and number of employees who have earned the
      specialty. Give each column an appropriate column name and format Specialty Title to 30
      characters.*/
399
      /*OBSERVATION: - Nicely formated table showing count of employee have particular type of
      specialty */
400
      COLUMN "Specialty Name" FORMAT A30;
401
      SELECT s.Title "Specialty Name", Count(e.employeeID) "No. of Employees"
402
      FROM Employee e JOIN EmployeeSpecialty es ON (e.EmployeeID=es.EmployeeID) JOIN Specialty
      s ON (es.SpecialtyID=s.SpecialtyID)
403
      GROUP BY s.Title;
404
405
      /*Q.NO.9) Produce a listing with the number (count) of employees assigned to each project
      within each department. The result table should list the DepartmentName, ProjectTitle
      and number of employees. Give each column an appropriate column name. Use either the
      WHERE or the FROM clause to join the tables. This query is a little tricky - because you
      have two attributes on the SELECT line along with the aggregate, your GROUP BY statement
      will also need attributes.*/
      /*OBSERVATION:- Nicely formated table showing no. of employee assigned to each project
406
      within each department*/
      SELECT DepartmentName "Department Name", ProjectTitle "Project Title", count(e.employeeID
407
      ) "No. of Employees"
408
      FROM Employee e JOIN Department d ON (e.DepartmentNumber=d.DepartmentNumber) JOIN
      Project p ON (d.DepartmentNumber=p.DepartmentNumber)
409
      GROUP BY p.ProjectTitle, d.DepartmentName;
410
411
      /*Q.NO.10) Produce a listing of the number of patients treated and the total service
      charges ChargeAmount) received by each doctor (Title includes 'M.D.'). The result table
      should have three columns: the LastName and FirstName concatenated into one column,
      number of patients, and the total service charges. Give each column an appropriate
      column name. Use either the WHERE or the FROM clause to join the tables. You must
      determine on your own which tables and columns are required to produce the result
412
      /*OBSERVATION:- Nicely formated table showing doctor's name, number of patient he
      treated and service charege*/
      COLUMN "Doctor Name" FORMAT A20;
413
      COLUMN "Total Service Charge" FORMAT $99,999.99;
414
415
      SELECT LastName | | ', ' | | FirstName "Doctor Name", Count (t. PatientID) "Number of Patient",
      SUM (t.ChargeAmount) "Total Service Charge"
416
      FROM Employee e JOIN Treatment t on (e.EmployeeID=t.EmployeeID)
417
      WHERE Title LIKE '%M.D.%'
418
      GROUP BY e.LastName, e.FirstName;
419
420
      /*Q.NO.11) The payroll department needs to regularly access information about employee
      salary information. The DBA of the company has directed you to create a view based on
      the employee table named vwSalary. This view should include the employee identifying
      number, employee last and first names (LastName and FirstName), and the salary for each
      employee. Name the columns of the view as follows: EmpID, EmpLastName, EmpFirstName,
      and EmpSalary. Write the SQL code needed to create this view. Write a SELECT statement
      to display rows from the view for employees with salaries at or above $20,000. Format
      all output appropriately.*/
421
      /*Creating a view named vwSalary*/
422
      COLUMN "EmpID" FORMAT A8;
423
      COLUMN "EmpLastName" FORMAT A15;
424
      COLUMN "EmpFirstName" FORMAT A15;
425
      COLUMN "EmpSalary" FORMAT $999,999,999.99;
426
      CREATE VIEW vwSalary
427
      (EmpID, EmpLastName, EmpFirstName, EmpSalary) AS
428
      SELECT EmployeeID, LastName, FirstName, Salary
429
      FROM Employee;
430
431
      /*accessing vwSalary*/
432
      SELECT *
433
      FROM vwSalary
434
      WHERE EmpSalary>=20000;
435
436
      /*Q.No.12) The Company's senior project manager needs to access information about
      departments that manage projects for a specific set of projects, namely those located in
```

either Maryville or Edwardsville. Create a view named vwDepartmentProjects that includes

```
the DepartmentNumber and DepartmentName columns from the department table and the
     ProjectTitle and Location columns from the project table. The view should only
     reference rows for projects that are located in either Maryville or Edwardsville. The
     columns in the view should be named DeptNo, Department, Project, and Location,
     respectively. Write a SELECT statement to display all of the rows that are accessible
     through the view. Format the output columns of the SELECT statement as A25 for Project
     and Department, and A15 for Location.*/
437
     /*Creating a view named vwDepartmentProjects*/
     COLUMN "Project" FORMAT A25;
438
439
     COLUMN "Department" FORMAT A25;
440
     COLUMN "Location" FORMAT A15;
     CREATE VIEW vwDepartmentProjects
441
442
     (DeptNo, Department, Project, Location) AS
443
     SELECT d.DepartmentNumber, d.DepartmentName, p.ProjectTitle, p.Location
444
     FROM Department d JOIN Project p ON (d.DepartmentNumber=p.DepartmentNumber)
445
     WHERE Location IN ('Maryville', 'Edwardsville');
446
447
     /*accessing vwDepartmentProjects*/
448
     SELECT *
449
     FROM vwDepartmentProjects;
450
451
     /*Q.No.13) Create a view named vwProjectHours that will be used by the senior project
     manager to access information about work hours that have been reported for different
     projects. The view should join the project and projectAssignment tables. The view
     should have two columns; project title (not project number) and the average hours worked
     on each project. Name the columns Project and AverageHours in the view. (Hint: The
     rows in the view should be grouped by the project name). Write a SELECT statement
     against this view to display projects where the average hours is equal to or greater
     than 15. HINT: When creating the View you have renamed the average hours to
     AverageHours. This is the attribute you will reference in the query against the view.*/
452
     /*Creating a view named vwProjectHours*/
453
     CREATE VIEW vwProjectHours
454
     ("Project", "AverageHours") AS
455
     SELECT ProjectTitle, Avg (Hoursworked)
456
     FROM ProjectAssignment pa JOIN Project p ON (pa.ProjectNumber=p.ProjectNumber)
457
     GROUP BY ProjectTitle
458
     HAVING Avg(Hoursworked)>=15;
459
460
     /*accessing vwProjectHours*/
461
     SELECT *
462
     FROM vwProjectHours;
463
464
465
     /*last line of question 13 is some confusing, write the select statement against this
     view to display projects, by this if question mean just need the project names, this is
     code of APPROACH TO THIS OUESTION*/
466
     /*Befor that let's drop old one*/
467
     DROP VIEW vwProjectHours;
468
     CREATE VIEW vwProjectHours
469
     (Project, AverageHours) AS
470
     SELECT ProjectTitle, Avg(Hoursworked)
471
     FROM ProjectAssignment pa JOIN Project p ON (pa.ProjectNumber=p.ProjectNumber)
472
     GROUP BY ProjectTitle;
473
474
     /*accessing vwProjectHours*/
475
     SELECT Project
476
     FROM vwProjectHours
477
     WHERE AverageHours >=15;
478
479
480
     /*
                                          THE
     END
481
482
     483
     484
```

```
/*Sagar Kalauni*/
486
487
      /* Lab8-Kalauni*/
488
489
      /*Q.NO.1) The ProjectAssignment table stores data about the hours that employees are
      working on specific projects. A senior project manager needs a listing of employee
      names (first and last concatenated) who have not worked on projects 1, 2, 7 or 8. Use a
      subquery approach and sort the rows of the result table by employee last name.*/
490
      COLUMN "Employee" FORMAT A20;
491
      SELECT LastName||', '||FirstName "Employee"
492
      FROM Employee
493
      WHERE EmployeeID NOT IN ( SELECT EmployeeID
494
                                   FROM ProjectAssignment
495
                                   WHERE ProjectNumber IN (1, 2, 7, 8))
496
      ORDER BY lastName;
497
498
499
      /*Q.NO.2) Management would like a report on all employees with a salary GREATER than the
      MINIMUM salary of the employees in Department 3. Use a subquery approach and include
      the employee first name, last name (concatenated), department number, and salary. Sort
      the rows by departmentnumber. */
500
      COLUMN "Employee" FORMAT A20;
501
      COLUMN Salary FORMAT $99,999.99;
      SELECT LastName||', '||FirstName "Employee", DepartmentNumber, Salary
502
503
      FROM Employee
504
      WHERE Salary > (SELECT MIN(Salary)
505
                           FROM Employee
506
                           WHERE DepartmentNumber=3)
507
      ORDER BY DepartmentNumber;
508
509
      /*Q.NO.3) Management is concerned that some employees are not putting in sufficient work
      hours on assigned projects 1, 2, and 3. List the names of employees (last and first
      concatenated) for those employees who worked on one of these three projects, but worked
      fewer hours than the average number of hours worked on these three projects combined.
      This is a nested subquery. Order the report by last name.*/
510
      COLUMN "Employee Name" FORMAT A20;
511
      SELECT LastName||', '||FirstName "Employee Name"
512
      FROM Employee
513
      WHERE EmployeeID IN ( SELECT EmployeeID
514
                            FROM ProjectAssignment
515
                            WHERE ProjectNumber IN (1,2,3) AND HoursWorked < (SELECT SUM(AVG(
                            HoursWorked))
516
                                                                               FROM
                                                                               ProjectAssignment
517
                                                                               ProjectNumber IN
                                                                                (1,2,3)
518
                                                                               GROUP BY
                                                                               ProjectNumber))
519
      ORDER BY LastName;
520
521
      /*Q.NO.4) The previous report has piqued the project manager's curiosity. He would now
      like a report that lists all employees who have worked fewer hours than the average for
      all projects combined. Computer the average hours worked on a project in a subquery.
      In the report, list the employee's first and last name. */
522
      COLUMN "Employee Name" FORMAT A20;
523
      SELECT LastName||', '||FirstName "Employee Name"
524
      FROM Employee
525
      WHERE EmployeeID IN ( SELECT EmployeeID
526
                            FROM ProjectAssignment
527
                            WHERE HoursWorked < (SELECT SUM (AVG (HoursWorked))
528
                                                  FROM ProjectAssignment
529
                                                  GROUP BY ProjectNumber));
530
531
      /*Q.NO.5) The Chief Nurse would like a list of all room numbers that have a bed with a
      description that has Surgical anywhere in the field and are available. The result field
      should list the room */
      COLUMN "Room Number" FORMAT A12;
532
533
      SELECT RoomNumber "Room Number"
534
      FROM Bed
```

```
WHERE Availability='Y' AND BedType IN (SELECT BedType
536
                                          FROM BedClassification
537
                                          WHERE Description LIKE '%Surgical%');
538
539
     /*Q.NO.6) The project manager needs to know all available employees who can work on a new
     project. He wants a report that lists the employee last name, first name, and department
     name. But, he only wants the employees who are in the departments that are currently
     working on projects 3 or 5. This query will require both a JOIN (in the outer query) and
     a subquery. */
     COLUMN "Last Name" FORMAT
540
                               A12;
541
     COLUMN "First Name" FORMAT
542
     SELECT LastName "Last Name", FirstName "First Name", d.DepartmentName "Department Name"
543
     FROM Employee e LEFT OUTER JOIN Department d ON (e.DepartmentNumber=d.departmentnumber)
544
     WHERE d.DepartmentNumber IN (SELECT DepartmentNumber
545
                              FROM Project
546
                              WHERE ProjectNumber IN (3,5));
547
548
     /*Q.NO.7) The head of Pediatrics would like a list of all current patients in Pediatrics
     beds. Pediatric beds will always have PED somewhere in the roomnumber field. The
     hospital may add more pediatric beds in the future. Create the list by using a
     subquery. Format patient names with one heading.*/
549
     COLUMN "Patient Name" FORMAT A20;
550
     SELECT LastName | | ', ' | | FirstName "Patient Name"
551
     FROM Patient
552
     WHERE Bedno IN (SELECT BedNumber
553
                   FROM Bed
                   WHERE RoomNumber LIKE '%PED%');
554
555
     /*Q.NO.8) Provide the treatment number, patientId, and employeeID of all treatments with
556
     a service Category description of 'Surgery' and have a standardCharge greater than
     $5,000. This is a nested subquery. Order the report by treatment number. */
     COLUMN "Patient ID" FORMAT A10;
557
     COLUMN "Employee ID" FORMAT A12;
558
     SELECT treatmentNumber "Treatment Number", PatientID "Patient ID", EmployeeID "Employee
559
     TD"
560
     FROM Treatment
561
     WHERE ServiceID IN (SELECT ServiceID
562
                       FROM Service
563
                       Where StandardCharge>5000 AND CategoryID IN (SELECT CategoryID
564
                                                                FROM ServiceCategory
565
                                                                WHERE Description LIKE
                                                                '%Surgery%'))
566
     ORDER BY treatmentNumber;
567
568
     /*Q.NO.9) The Hospital Chief has requested a list of employees whose salary is less than
     all employee salaries in Department 2. The result should not include any employee who
     has a wagerate rather than a salary (i.e. salary should not be null). Use a subquery
     approach and the ALL function.*/
569
     COLUMN "Employee" FORMAT A20;
570
     COLUMN Salary FORMAT $999,999.99;
571
     SELECT LastName||', '||FirstName "Employee", Salary, DepartmentNumber
572
     FROM employee
573
     WHERE salary < ALL (SELECT Salary
574
                       FROM employee
575
                       WHERE DepartmentNumber = 2 AND salary IS NOT NULL);
576
577
     /*
578
                                           THE
                                                                     * /
     END
579
     580
     581
     582
583
```

/*Sagar Kalauni*/

```
/* Lab10-Kalauni*/
585
586
587
      /*Q.No.1) Management requires a listing of employees by last name, first name, and middle
      initial for department number 8. The last name should be displayed in all capital
      letters. The entire name should be concatenated together so as to display in a single
      field with a column heading of "Employee Name." The rows should be sorted by employee
      last name, then employee first name. */
588
      COLUMN "Employee Name" FORMAT A22;
      SELECT FirstName ||' '|| SUBSTR (MiddleName, 1,1) ||' '|| UPPER (LastName) "Employee
589
      Name"
590
      FROM Employee
591
      WHERE DepartmentNumber=8
      ORDER BY LastName, FirstName;
592
593
594
      /*Q.No.2)Write a query that displays the department name and the length in number of
      characters of each department's name. Use the department table. Label the column
      headings appropriately*/
595
      COLUMN "Dept. Name" FORMAT A26;
596
      COLUMN "Length" FORMAT 999999;
597
      SELECT DepartmentName "Dept. Name", LENGTH (DepartmentName) "Length"
598
      FROM Department;
599
600
      /*Q.No.3) Management wants a listing of department numbers and names (use the department
      table)-display the output as a single column with the heading "Department Information" -
      convert the DepartmentNumber column to character data as part of the query. */
      COLUMN "Department Information" FORMAT A32;
601
602
      SELECT To CHAR (DepartmentNumber, '999') | | ' | | DepartmentName "Department Information"
603
      FROM Department;
604
605
      /*Q.No.4)Write a query that displays the first four characters of each employee's last
      name and the last four digits of each employee's SSN for department 8. Label the column
      headings "Name" and "SSN." Order the result table rows by employee last name. */
606
      COLUMN "Name" FORMAT A5;
      COLUMN "SSN" FORMAT A5;
607
608
      SELECT SUBSTR(LastName, 1,4) "Name", SUBSTR(SSN,6) "SSN"
609
      FROM Employee
610
      WHERE DepartmentNumber=8
611
      ORDER BY LastName;
612
613
      /*Q.No.5)Write a query that displays all employee names as well as their work phone.
      Format their workphone to 999-999-9999.*/
614
      COLUMN "Employee Name" FORMAT A25;
615
      COLUMN "Phone No." FORMAT A18;
616
      SELECT LastName ||','|| FirstName "Employee Name", SUBSTR(WorkPhone, 1, 3) ||'-'||SUBSTR(
      WorkPhone, 4,3) | | '-' | | SUBSTR (WorkPhone, 7,4) "Phone No."
617
      FROM Employee;
618
619
      /*Q.No.6)Write a query to display a listing of employee last names and the EmployeeID of
      each employee's supervisor for the employees working in department 8. If the employee
      has no supervisor, display the message "Top Supervisor." Provide appropriate headings.
      Sort the result table by employee last name. */
620
      COLUMN "Emp Last Name" FORMAT A14;
621
      COLUMN "EmployeeID" FORMAT A18;
622
      SELECT LastName "Emp Last Name", DECODE (SupervisorID, NULL, 'Top Supervisor', EmployeeID
      ) "EmployeeID"
623
      FROM Employee
624
      WHERE DepartmentNumber=8
625
      ORDER BY LastName;
626
627
      /*If there was typo in the question for supervisorid*/
628
      COLUMN "Emp Last Name" FORMAT A14;
      COLUMN "SupervisorID" FORMAT A18;
629
630
      SELECT LastName "Emp Last Name", NVL (SupervisorID, 'Top Supervisor') "SupervisorID"
631
      FROM Employee
632
     WHERE DepartmentNumber=8
633
     ORDER BY LastName;
634
635
      /*Q.No.7Develop a listing for the company's senior project manager that lists employees
      that reported working between 15 and 25 hours (inclusive) on assigned projects. List
```

```
the employee last name, project number, and hours worked. Use the ABS function. Do NOT
      use the BETWEEN operator or any logical operator. Join the tables by use of the FROM
      clause. Use meaningful column headings. Sort the rows of the result table by employee
      last name. HINT: 20 is the midpoint between 15 and 25 hours, the absolute value of the
      difference would be 5 hours. */
636
      COLUMN "Emp Last Name" FORMAT A14;
      COLUMN "Project No." FORMAT 99;
638
      COLUMN "Hours worked" FORMAT 99.9;
      SELECT LastName "Emp Last Name", ProjectNumber "Project No.", HoursWorked "Hours worked"
639
640
      FROM Employee e JOIN ProjectAssignment pa ON (e.employeeId=pa.employeeId)
641
      WHERE ABS (HoursWorked -20) <=5
642
      ORDER By LastName;
643
644
      /*Q.No.8) The senior project manager needs a listing by employee last name, project
      number, and hours worked (HoursWorked column) rounded to the nearest integer value for
      projects 3 and 8. Join the tables by use of the FROM clause. Sort the result table by
      employee last name within project number. Use meaningful column names. */
      COLUMN "Emp Last Name" FORMAT A14;
646
      COLUMN "Project No." FORMAT 99;
647
      SELECT LastName "Emp Last Name", ProjectNumber "Project No.", ROUND (HoursWorked, 0)
648
      FROM Employee e JOIN ProjectAssignment pa ON (e.employeeId=pa.employeeId)
649
      WHERE ProjectNumber IN (3,8)
650
      ORDER BY ProjectNumber, LastName;
651
652
      /*Q.No.9) Write a query to display information about female dependents for the human
      resources manager. Display each dependent's name, gender, and date of birth. The date
      of birth should be displayed as: Month Name (spelled out), two-digit day, and
      four-digit year (e.g., December 05, 1970). Use the COLUMN commands shown here to format
      the first two columns of output. */
      COLUMN "Gender" Format A6;
      COLUMN "Dep Name" FORMAT A15;
      SELECT Name "Dep Name", Gender "Gender", TO CHAR (BirthDate, 'Month DD, YYYY') "Date of
656
      FROM Dependent
657
      WHERE Gender= 'F';
658
659
      /*Q.No.10)Write a query to display each dependent's name, date of birth, and date on
      which the dependent turned or will turn 65 years of age, but only for dependents born
      after January 1, 1980. Use meaningful column names. Display each date using the
      DD-MON-YYYY format. Use the ADD MONTHS, TO CHAR, and TO DATE functions. Hint: 65 years
      equals 780 months. */
660
      SELECT Name "Dep Name", TO CHAR (BirthDate, 'DD-MON-YYYY') "Date of Birth", TO CHAR (
      ADD MONTHS (BirthDate, 780), 'DD-MON-YYYY') "65th Birthday"
661
      FROM Dependent
      WHERE BirthDate > TO_DATE('01-JAN-1980', 'DD-MON-YYYY');
662
663
664
      /*Q.No.11)Write a short query to display the current day of the week spelled out, for
      example Monday or Wednesday. The value should be obtained from the operating system
      internal date.*/
      SELECT TO CHAR (SYSDATE, 'DAY') "Current Day"
666
      FROM Dual;
      /*Q.No.12) The human resources manager needs a listing of dependents including their name
      and gender, but only for dependents that are spouses. Instead of displaying the coded
      values for gender, the result table must display the terms "Male" and "Female," as
      appropriate. Use meaningful column headings. Sort the result table by dependent name.
      SELECT Name "Dep Name", DECODE (Gender, 'M', 'Male', 'Female') "Gender"
670
      FROM Dependent
      WHERE RelationshipToEmployee= 'SPOUSE'
672
      ORDER BY Name;
674
      /*Q.No.13)Write a query to display a listing of employee last names, title, and salary
      for employees with a title of either 'Building Custodian' or 'L.P.N.'. If the employee
      is paid a wage, the salary will be NULL. In this situation, display the value $0.00.
      Provide appropriate headings. Sort the result table by staff member last name. */
      COLUMN "Salary" FORMAT $999,990.99; --by giving tailing term as zero
      COLUMN "Emp Last Name" FORMAT A15;
676
677
      SELECT LastName "Emp Last Name", Title, NVL (Salary, '0.00') "Salary"
```

645

653 654

655

665

667 668

669

671

673

675

```
678
      FROM Employee
679
      WHERE Title LIKE '%Building Custodian%' OR Title LIKE '%L.P.N%'
680
      ORDER BY LastName;
681
682
      /*This Can be done alternatively by this way */
683
684
      COLUMN "Emp Last Name" FORMAT A15;
685
      COLUMN "Salary" FORMAT $99,999.99;
      COLUMN "Title" FORMAT A20;
686
687
      SELECT LastName "Emp Last Name", Title "Title", DECODE (TO CHAR (Salary, '$9,999'), NULL,
      ' $0.00', TO CHAR (Salary, '$9,999.99')) "Salary"
688
      FROM Employee
      WHERE Title LIKE '%Building Custodian%' OR Title LIKE '%L.P.N%'
689
690
      ORDER BY LastName;
691
692
      /*Q.No.14) Write a query to compare treatment charges to standard service charges.
      Display the ServiceID and StandardCharge columns from the service table, and the
      ChargeAmount column from the treatment table. Only display the value if the difference
      between the service and actual charge is more than $50.00 in difference (either high or
      low). Also display a computed column that is the difference between the service and
      actual charge (as a positive number). Use appropriate column sizes and headings. Join
      the tables by use of the FROM clause. */
      COLUMN "Service ID"FORMAT A12;
694
      COLUMN "Service Charge" FORMAT $999,999.99;
      COLUMN "Treatment Charge" FORMAT $99,999.99;
695
      COLUMN "Difference" FORMAT $999,999.99;
696
697
      SELECT s.ServiceID "Service ID", s.StandardCharge "Service Charge", t.ChargeAmount
      "Treatment Charge", ABS (StandardCharge - ChargeAmount) "Difference"
698
      FROM Service s JOIN Treatment t ON (s.serviceID=t.serviceID)
699
      WHERE ABS(s.StandardCharge - t.ChargeAmount)> 50;
700
701
     /*Q.No.15) Modify the query for question 14 to display any rows where there is any
      difference between the service and actual charge, but only where the actual charge is
      less than the service charge. Order the output by differences from largest to
      smallest.*/
702
      COLUMN "Service ID"FORMAT A12;
703
      COLUMN "Service Charge" FORMAT $999,999.99;
704
      COLUMN "Actual Charge" FORMAT $999,999.99;
705
      COLUMN "Difference" FORMAT $999,999.99;
706
      SELECT s.ServiceID "Service ID", s.StandardCharge "Service Charge", t.ChargeAmount
      "Actual Charge", ABS (StandardCharge - ChargeAmount) "Difference"
      FROM Service s JOIN Treatment t ON (s.serviceID=t.serviceID)
707
708
      WHERE ChargeAmount < StandardCharge
709
      ORDER BY ABS (StandardCharge - ChargeAmount) DESC;
710
      /*
711
                                              THE
     END
                                                                            * /
712
713
714
     /*Solution for Q.Qn.3*/
715
     -- Program: Q.No.-3.sql
716
     -- Programmer: Sagar Kalauni
717
      -- Description: Information about employee's Dependent
718
719
      TTITLE CENTER 'Employee Name: 'EmployeeNameVar -
720
          RIGHT 'Page: ' FORMAT 99 sql.pno SKIP 2
721
     BTITLE SKIP 1 CENTER 'Not for external dissemination.'
     SET LINESIZE 55
722
723
      SET PAGESIZE 24
724
     SET NEWPAGE 1
725
726
      -- Define employee Variable
727
      --COLUMN e.Lastname||', '||e.Firstname NEW VALUE EmployeeNameVar NOPRINT
728
729
      COLUMN "Emp ID" FORMAT A6;
730
    COLUMN "Dependent Name" FORMAT A15;
731
     COLUMN "Gender" FORMAT A6;
732
      COLUMN "Date Birth" FORMAT A10;
733
      COLUMN "Relationship" FORMAT A12;
```

```
734
735
736
     CREATE OR REPLACE VIEW vwEmpDep (Employee, EmployeeID, Name, gender, BirthDate,
     RelationshipToEmployee) AS
737
     SELECT e.Lastname||', '||e.Firstname, d.EmployeeID "Emp ID", d.Name "Dependent Name", d.
     gender "Gender", d.BirthDate "Date Birth", d.RelationshipToEmployee "Relationship"
738
     FROM Dependent d JOIN Employee e ON (e.employeeID=d.employeeID);
739
740
741
     COLUMN Employee NEW VALUE EmployeeNameVar NOPRINT
742
     -- Set column sizes based on alias column names
     COLUMN "Emp ID" FORMAT A6;
743
744
     COLUMN "Dependent Name" FORMAT A15;
745
     COLUMN "Gender" FORMAT A6;
746
     COLUMN "Date Birth" FORMAT A10;
747
     COLUMN "Relationship" FORMAT A12;
748
749
     --CLEAR BREAK
750
     BREAK ON Name ON PAGE
751
    COMPUTE COUNT OF "Dependent" ON REPORT
752
753
     SELECT Employee, EmployeeID, Name, gender, RelationshipToEmployee
754
    FROM vwEmpDep;
755
     /*SELECT d.EmployeeID "Emp ID", d.Name "Dependent", d.gender "Gender", d.BirthDate "Date
     Birth", d.RelationshipToEmployee "Relationship"
756
     FROM Dependent d JOIN Employee e ON (e.employeeID=d.employeeID)
757
     ORDER BY d.EmployeeID; */
758
759
     760
     761
762
    /*Sagar Kalauni*/
763
     /* Lab9-Kalauni*/
764
765
     /*Solution for Q.Qn.1*/
766
     -- Program: Q.No.-1.sql
767
     -- Programmer: Sagar Kalauni
768
     -- Description: Information about employee's Dependent
769
770
    TTITLE 'Dependent Information'
771 BTITLE SKIP 2 CENTER 'Not for external dissemination.'
772 SET LINESIZE 55
773 SET PAGESIZE 24
    SET NWEPAGE 1
774
775
776
    COLUMN "Emp ID" FORMAT A6;
777
     COLUMN "Dependent" FORMAT A15;
778
     COLUMN "Gender" FORMAT A6;
779
    COLUMN "Date Birth" FORMAT A10;
780
     COLUMN "Relationship" FORMAT A12;
781
     SELECT EmployeeID "Emp ID", Name "Dependent", gender "Gender", BirthDate "Date Birth",
     RelationshipToEmployee "Relationship"
782
     FROM Dependent
783
     ORDER BY EmployeeID;
784
785
     /*Solution for Q.Qn.2*/
786
     -- Program: Q.No.-2.sql
787
     -- Programmer: Sagar Kalauni
788
     -- Description: Information about employee's Dependent
789
790
     TTITLE 'Dependent Information'
791 BTITLE SKIP 1 CENTER 'Not for external dissemination.'
792 SET LINESIZE 55
793 SET PAGESIZE 24
794
    SET NWEPAGE 1
795
796
     COLUMN "Emp ID" FORMAT A6;
```

```
797
      COLUMN "Dependent" FORMAT A15;
798
      COLUMN "Gender" FORMAT A6;
799
      COLUMN "Date Birth" FORMAT A10;
      COLUMN "Relationship" FORMAT A12;
800
801
802
     CLEAR BREAK
803
     BREAK ON "Emp ID" SKIP 2 ON REPORT
     COMPUTE COUNT OF "Emp ID" ON REPORT
804
805
806
      SELECT EmployeeID "Emp ID", Name "Dependent", gender "Gender", BirthDate "Date Birth",
      RelationshipToEmployee "Relationship"
807
     FROM Dependent
808
     ORDER BY EmployeeID;
809
810
      /*Solution for Q.Qn.3*/
811
      -- Program: Q.No.-3.sql
812
      -- Programmer: Sagar Kalauni
813
     -- Description: Information about employee's Dependent
814
815
     /*If done this way perfectly works for first table*/
816
817
      TTITLE CENTER 'Employee Name: 'EmployeeNameVar -
          RIGHT 'Page: ' FORMAT 99 sql.pno SKIP 2
818
819 BTITLE SKIP 1 CENTER 'Not for external dissemination.'
     SET LINESIZE 65
820
821
      SET PAGESIZE 15
822
      SET NEWPAGE 1
823
824
      -- Create a view to use in the Select command
825
     CREATE OR REPLACE VIEW vwEmpDep ( Employee, "Emp ID", DependentName, gender, Relationship
826
      SELECT e.Lastname||', '||e.Firstname, d.EmployeeID, d.Name, d.gender, d.
      RelationshipToEmployee
827
      FROM Dependent d JOIN Employee e ON (e.employeeID=d.employeeID)
828
      ORDER BY -DependentName;
829
830
      COLUMN Employee NEW VALUE EmployeeNameVar NOPRINT
831
      COLUMN "Emp ID" FORMAT A20
832
      COLUMN DependentName FORMAT A15
833
      COLUMN gender FORMAT A6
834
      COLUMN Relationship FORMAT A12
835
836
      BREAK ON Employee ON "Emp ID" PAGE;
837
      COMPUTE COUNT LABEL "Number of Dependents" OF Relationship ON "Emp ID"
838
839
      SELECT Employee, "Emp ID", DependentName, gender, Relationship
840
      FROM vwEmpDep
      ORDER BY "Emp ID" , relationship desc;
841
842
843
     /*If done this way perfectly works for last table*/
844
845
     TTITLE CENTER 'Employee Name: EmployeeNameVar -
          RIGHT 'Page: ' FORMAT 99 sql.pno SKIP 2
846
847
     BTITLE SKIP 1 CENTER 'Not for external dissemination.'
848
     SET LINESIZE 65
849
      SET PAGESIZE 15
850
      SET NEWPAGE 1
851
852
      -- Create a view to use in the Select command
853
      CREATE OR REPLACE VIEW vwEmpDep ( Employee, "Emp ID", DependentName, gender, Relationship
      ) AS
854
      SELECT e.Lastname||', '||e.Firstname, d.EmployeeID, d.Name, d.gender, d.
      RelationshipToEmployee
855
      FROM Dependent d JOIN Employee e ON (e.employeeID=d.employeeID)
856
      ORDER BY -DependentName;
857
858
      COLUMN Employee NEW VALUE EmployeeNameVar NOPRINT
859
      COLUMN "Emp ID" FORMAT A20
860
      COLUMN DependentName FORMAT A15
```

```
861
     COLUMN gender FORMAT A6
862
     COLUMN Relationship FORMAT A12
863
864
     BREAK ON Employee ON "Emp ID" PAGE;
865
     COMPUTE COUNT LABEL "Number of Dependents" OF Relationship ON "Emp ID"
866
867
     SELECT Employee, "Emp ID", DependentName, gender, Relationship
868
    FROM vwEmpDep
869
     ORDER BY "Emp ID" , relationship;
870
     /*I spent a lot of time for this question, I don't find a way to exectly shows ordering,
871
     But I think ordering does not matter here, because we do not have complete report photo
     in question*/
872
873
874
875
     876
     877
878
     /*If done this way perfectly works for last table*/
879
880
     TTITLE CENTER 'Employee Name: 'EmployeeNameVar -
        RIGHT 'Page: ' FORMAT 99 sql.pno SKIP 2
881
882
     BTITLE SKIP 1 CENTER 'Not for external dissemination.'
883
     SET LINESIZE 65
884
     SET PAGESIZE 15
885
     SET NEWPAGE 1
886
887
     -- Create a view to use in the Select command
888
     CREATE OR REPLACE VIEW vwEmpDep ( Employee, "Emp ID", DependentName, gender, Relationship
     SELECT e.Lastname||', '||e.Firstname, d.EmployeeID, d.Name, d.gender, d.
889
     RelationshipToEmployee
890
     FROM Dependent d JOIN Employee e ON (e.employeeID=d.employeeID)
891
     ORDER BY -DependentName;
892
893
     COLUMN Employee NEW VALUE EmployeeNameVar NOPRINT
894
     COLUMN "Emp ID" FORMAT A20
895
     COLUMN DependentName FORMAT A15
896
     COLUMN gender FORMAT A6
897
     COLUMN Relationship FORMAT A12
898
899
     BREAK ON Employee ON "Emp ID" PAGE;
900
     COMPUTE COUNT LABEL "Number of Dependents" OF Relationship ON "Emp ID"
901
902
     SELECT Employee, "Emp ID", DependentName, gender, Relationship
903
     FROM vwEmpDep
904
     ORDER BY "Emp ID" , relationship;
905
906
     /*If done this way perfectly works for first table*/
907
908
    TTITLE CENTER 'Employee Name: 'EmployeeNameVar -
909
        RIGHT 'Page: ' FORMAT 99 sql.pno SKIP 2
910 BTITLE SKIP 1 CENTER 'Not for external dissemination.'
911
     SET LINESIZE 65
912
     SET PAGESIZE 15
913
     SET NEWPAGE 1
914
915
     -- Create a view to use in the Select command
916
     CREATE OR REPLACE VIEW vwEmpDep ( Employee, "Emp ID", DependentName, gender, Relationship
     ) AS
917
     SELECT e.Lastname||', '||e.Firstname, d.EmployeeID, d.Name, d.gender, d.
     RelationshipToEmployee
918
     FROM Dependent d JOIN Employee e ON (e.employeeID=d.employeeID)
919
     ORDER BY -DependentName;
920
921
     COLUMN Employee NEW VALUE EmployeeNameVar NOPRINT
```

```
922
   COLUMN "Emp ID" FORMAT A20
923
   COLUMN DependentName FORMAT A15
924
   COLUMN gender FORMAT A6
925
   COLUMN Relationship FORMAT A12
926
   BREAK ON Employee ON "Emp ID" PAGE;
927
928
   COMPUTE COUNT LABEL "Number of Dependents" OF Relationship ON "Emp ID"
929
930 SELECT Employee, "Emp ID", DependentName, gender, Relationship
931
   FROM vwEmpDep
    ORDER BY "Emp ID" , relationship desc;
932
933
934
935
    /*I spent a lot of time for this question, I don't find a way to exectly shows ordering,
    But I think ordering does not matter here, because we do not have complete report photo
    in question*/
936
937
938
    939
    940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
```