Database Design II and SQL Using Oracle DBS301SEE.09112.2191

Review Test Submission: L5-Joins

Course Documents

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Course	Database Design II and SQL Using Oracle
Test	L5-Joins
Started	2/8/19 12:15 PM
Submitted	2/8/19 10:24 PM
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Status	Needs Grading
Attempt Score	Grade not available.
Time Elapsed	10 hours, 8 minutes
Results Displayed	All Answers, Submitted Answers, Correct Answers

Question 1 Needs Grading

> Display the department name, city, street address and postal code for all departments sorted by city and department name.

Selected

SELECT d.department_name,l.city,l.street_address,l.city

Answer:

FROM departments d LEFT JOIN locations I

ON d.location id=l.location id

ORDER BY I.city,d.department_name

CITY DEPARTMENT NAME STREET ADDRESS CITY

Magdalen Centre, The Oxford Sales Oxford Science Park Oxford

Accounting Seattle 2004 Charade Rd Seattle

Actuarial Seattle 2004 Charade Rd

Seattle

Seattle 2004 Charade Rd Administration

Seattle

Seattle 2004 Charade Rd Contracting

Seattle

Executive Seattle 2004 Charade Rd

Seattle

IT Southlake 2014 Jabberwocky Rd

Southlake

Marketing **Toronto** 147 Spadina Ave

Toronto Shipping

south San Francisco

2011 Interiors

Blvd south San Francisco

9 rows selected.





FROM departments JOI	IN locations USING (location_id)	
ORDER BY city, depar	rtment_name;	
DEPARTMENT_NAME	CITY	
STREET_ADDRESS	POSTAL_CODE	
Sales	Oxford	Magdalen Centre, The Oxford
Science Park OX9 9ZE	3	
Accounting	Seattle	2004 Charade
Rd	98199	
Administration	Seattle	2004 Charade
Rd	98199	
Contracting	Seattle	2004 Charade
Rd	98199	
Executive	Seattle	2004 Charade
Rd	98199	
Shipping	South San Francisco	2011 Interiors
Blvd	99236	
IT	Southlake	2014 Jabberwocky
Rd	26192	
Marketing	Toronto	147 Spadina
Ave	M5V 2L7	

Question 2 Needs Grading

Display employee's Managers ID, managers Last Name and employee number nd last name

Label the columns Manager, Mgr# ,Employee and Emp#, respectively. Sort by manager number

Selected Answer:

Answer:

SELECT DISTINCT m.manager_id AS "Mgr#",m.last_name AS "Manager",e.employee_id AS "Emp#",e.last_name AS "Employee"

FROM employees e INNER JOIN employees m

ON e.manager_id=m.employee_id ORDER BY m.manager_id

Mgr# Manager	Emp# Employee
100 De Haan 100 Hartstein 100 Kochhar 100 Kochhar 100 Mourgos 100 Mourgos 100 Mourgos 100 Mourgos 100 Zlotkey 100 Zlotkey Mgr# Manager	103 Hunold 202 Fay 200 Whalen 205 Higgins 141 Rajs 142 Davies 143 Matos 144 Vargas 1 Flertjan 3 Grovlin 4 Smertal Emp# Employee
100 Zlotkey	5 Mustaine 6 Harvey 7 LeDuc 8 Bergsteige 9 Gruber 11 Sanchez 12 Chancevente 14 Torson 15 Cornel 16 Gibbons 17 Pallomine

Mgr# Manager	Emp# Employee
100 Zlotkey	18 Jacobs 19 Strandherst 21 Brigade 22 Litrand 23 Armarillo 24 Mot 25 Turcotte 26 LeBlanc 27 Rodriguez 28 Young 29 Loo Nam Emp# Employee
100 Zlotkey	30 Chan 33 Wandiko 34 Gregson 35 Krain 36 Termede 39 Testorok 40 Whiteduck 41 Montoya 174 Abel 176 O'Brian 178 Grants Emp# Employee
100 Zlotkey 101 Higgins 102 Hunold 102 Hunold King King King King King King King King	180 de Man 206 Gietz 104 Ernst 107 Lorentz 101 Kochhar 102 De Haan 124 Mourgos 149 Zlotkey 201 Hartstein

Correct Answer:



Will look like this , just different order of columns and more results SELECT e.last_name as "Employee", e.employee_id "Emp#", m.last_name as "Manager", e.manager_id as "Mgr#"

FROM employees e LEFT OUTER JOIN employees m ON (e.manager_id = m.employee_id);

Employee	-	Manager	Mgr#
Zlotkey		King	100
Kochhar		King	100
De Haan		King	100
Mourgos		King	100
Hartstein		King	100
Whalen		Kochhar	101
Higgins		Kochhar	101
Hunold		De Haan	102
Ernst		Hunold	103
Lorentz		Hunold	103
Rajs	141	Mourgos	124
Davies		Mourgos	124
Vargas		Mourgos	124
Matos	143	Mourgos	124
Abel	174	Zlotkey	149
Taylor		Zlotkev	149
Grant	178	Zlotkey	149
Fay	202	Hartstein	201
Gietz	206	Higgins	205
King	100		
=			

20 rows selected

NOTE: left join required to include employees without value for manager_id since manager_id in employees table permits nulls. But this is lab 5a that is about simpler joins.

Question 3 Needs Grading

Display full name of the employees using format of Last, First, their hire date and salary together with their department name and city, but only for departments which names start with an A or the department name starts with S and end with g. Sort by department name and employee name. Show me one row and tell me how many rows were in the output

Sample output: Termede, Ingrid 01-DEC-14 11000 Sales

SELECT e.last_name||','||e.first_name AS "fullname", e.hire_date, e.salary, d.department_name,l.city
FROM employees e
INNER JOIN departments d ON e.department_id=d.department_id
INNER JOIN locations I ON d.location_id=l.location_id
WHERE d.department_name LIKE 'A%' or (d.department_name LIKE 'S%' and d.department_name LIKE '%g')
ORDER BY d.department_name, e.last_name||','||e.first_name;

fullname DEPARTMENT_NAME	HIRE_DATE CITY	SALARY
Gietz, William Seattle Higgins, Shelley Seattle Flertjan, Bjorn Seattle Whalen, Jennifer Seattle Davies, Curtis south San Francisco Matos, Randall south San Francisco Mourgos, Kevin south San Francisco Rajs, Trenna south San Francisco Vargas, Peter south San Francisco	07-JUN-94 07-JUN-94 11-JAN-11 17-SEP-87 29-JAN-97 15-MAR-98 16-NOV-99 17-OCT-95 09-JUL-98	8300 Accounting 12000 Accounting 17000 Administration 4400 Administration 3100 Shipping 2600 Shipping 5800 Shipping 3500 Shipping

9 rows selected.

Correct Answer:

value name SALARY DEPARTMENT_NAME CITY		HIRE_DATE
Gietz, William 8300 Accounting		07-JUN-94
Seattle Higgins, Shelley 12000 Accounting Seattle		07-JUN-94
Whalen, Jennifer 4400 Administration	Seattle	17-SEP-87

Question 4 Needs Grading

Display the employee id and first name of every employee along with the first name and id of the employee's manager (if applicable).

order by employee d

3 rows

only show rows with employee id greater than 30 and less than 110

SELECT e.employee_id,e.first_name,e.manager_id,m.first_name as "manager_id" FROM employees e LEFT JOIN employees m ON e.manager id = m.employee id WHERE e.employee id>'30'and e.employee id<'110' ORDER BY e.employee id; EMPLOYEE ID FIRST NAME MANAGER ID manager id 33 Torey 149 Eleni 149 Eleni 34 Kaley 149 Eleni 35 Hari 36 Ingrid 149 Eleni 39 Lisa 149 Eleni 40 Marthe 149 Eleni 41 Inigo 149 Eleni 100 Steven 101 Neena 100 Steven 102 Lex 100 Steven 103 Alexander 102 Lex EMPLOYEE_ID FIRST_NAME MANAGER ID manager id

104 Bruce 103 Alexander 107 Diana 103 Alexander

13 rows selected.

Correct Answer:



SELECT e.employee_id, e.first_name, m.first_name as Manager_Last_Name, m.employee_id as Manager_ID

FROM employees e LEFT JOIN employees m ON (e.manager_id = m.employee_id) WHERE e.employee_id < 110

and e.employee_id > 30 order by e.employee_id;

EMPLOYEE_ID FIRS	ST_NAME	MANAGER_LAST_NAME	MANAGER_ID
33 Torey	 Eleni	149	
34 Kaley	Eleni	149	
35 Hari	Eleni	149	
36 Ingrid	Eleni	149	
39 Lisa	Eleni	149	
40 Marthe	Eleni	149	
41 Inigo	Eleni	149	
100 Steven			
101 Neena	Steven	100	
102 Lex	Steven	100	
103 Alexander	Lex	102	
104 Bruce	Alexander	103	
107 Diana	Alexander	103	

13 rows selected

Question 5 Needs Grading

Display the employee id, last name, job, department name, and job grade for all employees. Should get 54 rows.

Selected SELECT e.employee id,e.last name,e.job id,d.department name,j.grade

Answer: FROM employees e LEFT JOIN departments d

ON e.department_id=d.department_id

LEFT JOIN JOB_GRADES j

ON e.salary

BETWEEN j.lowest_sal AND j.highest_sal EMPLOYEE ID LAST NAME JOB ID

DEPARTMENT NAME G

100 King AD_PRES Executive
1 Flertjan AC_REP Administration

101 Kochhar AD_VP Executive

Ε

Ε

Ε

102 De Haan 201 Hartstein 205 Higgins 12 Chancevente 174 Abel 4 Smertal 29 Loo Nam 11 Sanchez EMPLOYEE_ID LAST_N DEPARTMENT_NAME	AME JOB_ID	E D D D D
15 Cornel 16 Gibbons 17 Pallomine 18 Jacobs 21 Brigade 23 Armarillo 24 Mot 3 Grovlin 41 Montoya		
39 Testorok 36 Termede 35 Krain 34 Gregson 33 Wandiko 30 Chan 5 Mustaine 27 Rodriguez 26 LeBlanc 25 Turcotte 149 Zlotkey EMPLOYEE_ID LAST_N DEPARTMENT_NAME	SA_REP Sales SA_MAN Sales AME JOB_ID G	
28 Young 22 Litrand 6 Harvey 9 Gruber 19 Strandherst 103 Hunold 176 O'Brian 206 Gietz 8 Bergsteige 7 LeDuc 180 de Man EMPLOYEE_ID LAST_N. DEPARTMENT_NAME	SA_REP Sales SA_REP Sales SA_REP Sales SA_REP Sales SA_REP Sales IT_PROG IT SA_REP Sales AC_ACCOUNT Accounting SA_REP Sales	
178 Grants 104 Ernst 202 Fay 124 Mourgos 200 Whalen 107 Lorentz 141 Rajs 142 Davies 143 Matos 144 Vargas 54 rows selected.	SA_REP IT_PROG IT MK_REP Marketing ST_MAN Shipping AD_ASST Administration IT_PROG IT ST_CLERK Shipping ST_CLERK Shipping ST_CLERK Shipping ST_CLERK Shipping ST_CLERK Shipping	C C B B B A A

SELECT employee_id, last_name, job_id, department_name, grade
FROM employees
LEFT JOIN departments USING (department_id)
LEFT JOIN job_grades ON (salary BETWEEN lowest_sal AND highest_sal);
NOTE: left joins required to include employees without departments or without salary since nulls are permitted for both these columns in employees table

Alternate Solution:
SELECT employee_id, last_name, job_id, department_name, grade
FROM departments
RIGHT JOIN employees USING (department_id)
LEFT JOIN job_grades ON (salary BETWEEN lowest_sal AND highest_sal)

Question 6 Needs Grading

Display the location id, address, city, state and country for each location id.

LOCATION_ID,STREET_ADDRESS,CITY,STATE_PROVINCE,COUNTRY_NAME FROM LOCATIONS A JOIN COUNTRIES B ON A.COUNTRY_ID = B.COUNTRY_ID LOCATION_ID STREET_ADDRESS CITY STATE_PROVINCE COUNTRY_NAME 1000 1297 Via Cola di Rie Roma Italy 1100 93091 Calle della Testa Venice Italy 1200 2017 Shinjuku-ku Tokyo Tokyo Prefecture Japan 1300 9450 Kamiya-cho Hiroshima Japan 1400 2014 Jabberwocky Rd Southlake United States of America Texas 1500 2011 Interiors Blvd south San Francisco United States of America California 1600 2007 Zagora St South Brunswick New Jersey United States of America 1700 2004 Charade Rd Seattle United States of America Washington 1800 147 Spadina Ave Toronto Canada 1900 6092 Boxwood St Whitehorse Canada Yukon 2000 40-5-12 Laogianggen China LOCATION ID STREET ADDRESS CITY STATE_PROVINCE COUNTRY_NAME Bombay 2100 1298 Vileparle (E) Maharashtra India 2200 12-98 Victoria Street Sydney **New South** Wales Australia 2300 198 Clementi North Singapore Singapore 2400 8204 Arthur St London United Kingdom 2500 Magdalen Centre, The Oxford Science Park Oxford **United Kingdom** 2600 9702 Chester Road Stretford Manchester United Kingdom 2700 Schwanthalerstr. 7031 Munich Bavaria Germany 2800 Rua Frei Caneca 1360 Sao Paulo Sao Paulo Brazil 2900 20 Rue des Corps-Saints Geneva Geneve Switzerland 3000 Murtenstrasse 921 Bern Switzerland Utrecht 3100 Pieter Breughelstraat 837 Netherlands LOCATION ID STREET ADDRESS CITY STATE_PROVINCE COUNTRY_NAME

Mexico City

Distrito

3200 Mariano Escobedo 9991 Federal, Mexico

23 rows selected.



SELECT location_id, street_address, city, state_province, country_name
FROM locations
LEFT JOIN countries using (country_id);
NOTE: left join required to include locations without value for country_id since country_id in locations table permits nulls

ALTERNATE solution:
SELECT location_id, street_address, city, state_province, country_name
FROM countries
RIGHT JOIN locations using (country_id);

Question 7 Needs Grading

Display the full name of the manager of each department in states/provinces of Ontario, California, Bavaria and Washington along with the department name, city, postal code and province name. Sort the output by city and then by department name.

SELECT e.first_name||e.last_name AS
"Fullname",d.department_name,l.city,l.postal_code,l.state_province
FROM employees e LEFT JOIN employees m
ON e.employee_id= m.manager_id
INNER JOIN departments d
ON e.department_id=d.department_id
INNER JOIN locations I
ON d.location_id=l.location_id
WHERE I.state_province in ('Ontario','California','Bavaria','Washington')
ORDER BY l.city,d.department_name;

Fullname DEPARTMENT_NAME
CITY POSTAL_CODE STATE_PROVINCE

ShelleyHiggins Accounting Seattle 98199 Washington WilliamGietz Accounting Seattle Washington 98199 **JenniferWhalen** Administration Seattle Washington 98199 BiornFlertian Administration Seattle Washington 98199 NeenaKochhar Executive Seattle 98199 Washington NeenaKochhar Executive Seattle 98199 Washington Seattle LexDe Haan Executive 98199 Washington Seattle StevenKing Executive 98199 Washington StevenKing Executive Seattle 98199 Washington Seattle StevenKing Executive 98199 Washington StevenKing Executive Seattle 98199 Washington DEPARTMENT NAME Fullname POSTAL_CODE STATE_PROVINCE CITY

Seattle StevenKing Executive Washington 98199 Toronto PatFay Marketing M5V 2L7 Ontario **Toronto** MichaelHartstein Marketing M5V 2L7 Ontario RandallMatos Shipping south San Francisco 99236 California PeterVargas Shipping south San Francisco 99236 California KevinMourgos Shipping south San Francisco 99236 California KevinMourgos Shipping south San California 99236 Francisco KevinMourgos Shipping south San 99236 Francisco California CurtisDavies Shipping south San California Francisco 99236 Shipping TrennaRajs south San Francisco 99236 California KevinMourgos Shipping south San Francisco 99236 California 22 rows selected.



```
SELECT distinct m.last name as "Manager",
department name, city, postal code, state province
FROM employees E
JOIN employees M
      On (e.manager_id = m.employee_id)
JOIN departments D
      on (m.manager_id = d.manager_id)
JOIN locations L
         USING (location_id)
WHERE LOWER(state_province) IN ('ontario', 'bavaria', 'california', 'washington')
ORDER BY city, department_name;
Manager DEPARTMENT_NAME
                                           CITY
POSTAL_CODE STATE_PROVINCE
_____
De Haan
                   Executive
                                           Seattle
       Washington
98199
Hartstein
                  Executive
                                           Seattle
        Washington
98199
Kochhar
                   Executive
                                            Seattle
98199
        Washington
Mourgos
                   Executive
                                            Seattle
98199
        Washington
                                            Seattle
Zlotkey
                  Executive
        Washington
```

CITY

Oxford

Question 8 Needs Grading

Display all employees and all cities.

Selected SELECT e.employee_id,e.first_name||e.last_name AS "Fullname", I.city

Answer: FROM employees e FULL JOIN departments d

ON e.department_id=d.department_id

FULL JOIN locations I

ON d.location_id=l.location_id

EMPLOYEE ID Fullname

6 HenryHarvey

EMPLOTEE_ID Fullilaille	CITT
100 StevenKing	Seattle
101 NeenaKochhar	Seattle
102 LexDe Haan	Seattle
103 AlexanderHunold	Southlake
104 BruceErnst	Southlake
107 DianaLorentz	Southlake
124 KevinMourgos	south San Francisco
141 TrennaRajs	south San Francisco
142 CurtisDavies	south San Francisco
143 RandallMatos	south San Francisco
144 PeterVargas	south San Francisco
EMPLOYEE_ID Fullname	CITY
149 EleniZlotkey	Oxford
174 EllenAbel	Oxford
176 JonathonO'Brian	Oxford
178 KimberelyGrants	
180 Spencede Man	
200 JenniferWhalen	Seattle
201 MichaelHartstein	Toronto
202 PatFay	Toronto
205 ShelleyHiggins	Seattle
206 WilliamGietz	Seattle
1 BjornFlertjan	Seattle
EMPLOYEE_ID Fullname	CITY
3 GusGrovlin	Oxford
4 BillSmertal	Oxford
5 DaveMustaine	Oxford
6.1.	a

7 HenriLeDuc 8 ConradBergsteige 9 KurtGruber 11 MiguelSanchez 12 DanChancevente 14 GregTorson 15 ChrisCornel EMPLOYEE_ID Fullname	Oxford
16 BilGibbons 17 RussPallomine 18 LynJacobs 19 SallyStrandherst 21 ThomasBrigade 22 JaneLitrand 23 TonyArmarillo 24 MattMot 25 GillesTurcotte 26 FrancoiseLeBlanc 27 CarlosRodriguez EMPLOYEE_ID Fullname	Oxford
28 MalcomYoung 29 CharlesLoo Nam 30 LeeChan 33 ToreyWandiko 34 KaleyGregson 35 HariKrain 36 IngridTermede 39 LisaTestorok 40 MartheWhiteduck 41 InigoMontoya EMPLOYEE_ID Fullname	Oxford Seattle CITY
EMPLOYEE_ID Fullname	Seattle Beijing Bern London Tokyo Sydney Utrecht South Brunswick Bombay Geneva Sao Paulo CITY
74 rows selected.	Venice Whitehorse Singapore Hiroshima Stretford Roma Mexico City Munich

Correct



Answer: SELECT city, employee_id, last_name, first_name

FROM employees

FULL JOIN departments using (department_id) FULL JOIN locations using (location_id);

NOTE: full joins (left and right) required since some employees do not have location_ids and some locations may not have country_id and some countries do not have locations and some locations do not have employees

Question 9 **Needs Grading**

> Display the name of each city and the names of employees assigned to that city (if applicable).

Selected Answer: SELECT l.city,e.first_name||' '||e.last_name AS"fullname"

	FROM locations I LEF ON I.location_id= d.le ON d.department_id CITY	ocation_id LEFT JOIN employees e
	Oxford Oxford Oxford Oxford Oxford Oxford Oxford Oxford South San Francisco Seattle Southlake Toronto CITY	Ellen Abel Tony Armarillo Conrad Bergsteige Thomas Brigade Lee Chan Dan Chancevente Chris Cornel Curtis Davies Lex De Haan Bruce Ernst Pat Fay fullname
	Seattle Oxford Seattle Oxford Oxford Oxford Toronto Oxford Seattle Southlake Oxford CITY	Bjorn Flertjan Bil Gibbons William Gietz Kaley Gregson Gus Grovlin Kurt Gruber Michael Hartstein Henry Harvey Shelley Higgins Alexander Hunold Lyn Jacobs fullname
	Seattle Seattle Oxford Oxford Oxford Oxford Oxford Southlake south San Francisco Oxford Oxford CITY	Steven King Neena Kochhar Hari Krain Francoise LeBlanc Henri LeDuc Jane Litrand Charles Loo Nam Diana Lorentz Randall Matos Inigo Montoya Matt Mot fullname
	south San Francisco Oxford Oxford Oxford south San Francisco	Kevin Mourgos Dave Mustaine Jonathon O'Brian Russ Pallomine Trenna Rajs

south San Francisco	Kevin Mourgos
Oxford	Dave Mustaine
Oxford	Jonathon O'Brian
Oxford	Russ Pallomine
south San Francisco	Trenna Rajs
Oxford	Carlos Rodriguez
Oxford	Miguel Sanchez
Oxford	Bill Smertal
Oxford	Sally Strandherst
Oxford	Ingrid Termede
Oxford	Lisa Testorok
CITY	fullname
Oxford	Greg Torson
^	O'' - "

Oxford Gilles Turcotte south San Francisco Peter Vargas
Oxford Torey Wandiko
Seattle Jennifer Whalen
Oxford Marthe Whiteduck
Oxford Malcom Young
Oxford Eleni Zlotkey

Munich Mexico City Roma

CITY fullname

Stretford Hiroshima Singapore Whitehorse Venice Sao Paulo Geneva Bombay

South Brunswick

Utrecht Sydney

CITY fullname

Tokyo London

Bern Beijing Seattle Seattle

72 rows selected.

Correct Answer: SELECT city, last name, first name

FROM locations

LEFT JOIN departments USING (location_id)

LEFT JOIN employees USING (department_id);

Question 10 Needs Grading

Display the employee id, last name of every employee and the name of the department and city that the employee is assigned to (if applicable).

Selected SELECT employee id, last name, department name, city

Answer: FROM employees

LEFT JOIN departments using (department_id)

LEFT JOIN locations using (location id);

EMPLOYEE_ID LAST_NAME DEPARTMENT_NAME

CITY

CITY		
103 Hunold	 IT	Southlake
104 Ernst	IT	Southlake
107 Lorentz	IT	Southlake
124 Mourgos	Shipping	south San
Francisco		
141 Rajs	Shipping	south San Francisco
142 Davies	Shipping	south San
Francisco		
143 Matos	Shipping	south San
Francisco		
144 Vargas	Shipping	south San
Francisco		
205 Higgins	Accounting	Seattle
206 Gietz	Accounting	Seattle

CITY	NAME	Seattle DEPARTMENT_NAME
101 Kochhar 102 De Haan 200 Whalen 1 Flertjan 201 Hartstein 202 Fay 149 Zlotkey 174 Abel 176 O'Brian 3 Grovlin	Executive Executive Administration Administration Marketing Marketing Sales Sales Sales Sales Sales	Seattle Seattle ation Seattle on Seattle Toronto
4 Smertal EMPLOYEE_ID LAST_NCITY	Sales NAME	Oxford DEPARTMENT_NAME
5 Mustaine 6 Harvey 7 LeDuc 8 Bergsteige 9 Gruber 11 Sanchez 12 Chancevente 14 Torson 15 Cornel 16 Gibbons 17 Pallomine	Sales	Oxford
18 Jacobs 19 Strandherst 21 Brigade 22 Litrand 23 Armarillo 24 Mot 25 Turcotte 26 LeBlanc 27 Rodriguez 28 Young 29 Loo Nam EMPLOYEE_ID LAST_N	Sales	Oxford
30 Chan 33 Wandiko 34 Gregson 35 Krain 36 Termede 39 Testorok 40 Whiteduck 41 Montoya 178 Grants 180 de Man	Sales Sales Sales Sales Sales Sales Sales Sales Sales	Oxford
54 rows selected. SELECT employee_id FROM employees LEFT JOIN departmen		ment_id)

Correct Answer:

LEFT JOIN locations using (location_id);

Saturday, February 16, 2019 3:11:02 AM EST