



MySQL Subquery Time: 80 Min

**1.** Write a query to find the name (first\_name, last\_name) and the salary of the employees who have a higher salary than the employee whose last\_name='Bull'.

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN   11000.00   0.00   100   30
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30



117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN
7900.00   0.00   100   50
6500.00   0.00   100   50
5800.00   0.00   100   50
3200.00   0.00   120   50       126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK
2700.00   0.00   120   50       127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK
2400.00   0.00   120   50       128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK
2200.00   0.00   120   50       129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK
3300.00   0.00   121   50       130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK
2800.00   0.00   121   50
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK   2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50



140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK
2600.00   0.00   124   50       144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK
2500.00   0.00   124   50
14000.00   0.40   100   80
13500.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN   11000.00   0.30   100   80
149   Eleni
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP
10000.00   0.30   145   80
9500.00   0.25   145   80
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP
9500.00   0.35   146   80         158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP
9000.00   0.35   146   80
8000.00   0.30   146   80
7500.00   0.30   146   80
161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80



163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80
165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP   6800.00   0.10   147   80
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP   6400.00   0.10   147   80
167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP
6200.00   0.10   147   80       168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP
11500.00   0.25   148   80
10000.00   0.20   148   80
9600.00   0.20   148   80
7400.00   0.15   148   80
7300.00   0.15   148   80
6100.00   0.10   148   80     174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP
11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50



186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK
3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK
3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK
2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK
3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK
2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK   3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK
3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK
2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK   2600.00   0.00   124   50
2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST   4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK MAN
13000.00   0.00   100   20
202   Pat   Fay   PFAY   603.123.6666   1987-09-27   MK_REP   6000.00   0.00   201   20
203   Susan   Mavris   SMAVRIS   515.123.7777   1987-09-28   HR_REP
6500.00   0.00   101   40
204   Hermann   Baer   HBAER   515.123.8888   1987-09-29   PR_REP   10000.00   0.00   101   70
205   Shelley   Higgins   SHIGGINS   515.123.8080   1987-09-30   AC_MGR
12000.00   0.00   101   110
206   William   Gietz   WGIETZ   515.123.8181   1987-10-01   AC_ACCOUNT   8300.00   0.00   205   110
0500.00   0.00   205   110

### Code:



SELECT FIRST\_NAME, LAST\_NAME, SALARY

FROM employees

WHERE SALARY >

(SELECT salary FROM employees WHERE last\_name = 'Bull');

**2.** Write a query to find the name (first\_name, last\_name) of all employees who works in the IT department.

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN   11000.00   0.00   100   30



115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK
2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN
8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN
6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN
5800.00   0.00   100   50
125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK
3200.00   0.00   120   50
126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK   2700.00   0.00   120   50
127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK   2400.00   0.00   120   50
128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK   2200.00   0.00   120   50
129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK   3300.00   0.00   121   50
130   Mozhe
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK   2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50



138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK
3500.00   0.00   124   50
3100.00   0.00   124   50             143       Randall
2600.00   0.00   124   50       144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK
2500.00   0.00   124   50
14000.00   0.40   100   80
13500.00   0.30   100   80
12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN   11000.00   0.30   100   80
149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN   10500.00   0.20   100   80
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP   10000.00   0.30   145   80
151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   9500.00   0.25   145   80
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80
158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80



161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80
165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP
6800.00   0.10   147   80           166
6400.00   0.10   147   80
6200.00   0.10   147   80       168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP
11500.00   0.25   148   80       169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP
10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80
172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP   11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP
7000.00   0.15   149   0
6200.00   0.10   149   80       180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK
3200.00   0.00   120   50       181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK
3100.00   0.00   120   50       182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK
2500.00   0.00   120   50     183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK
2800.00   0.00   120   50



104   N
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK
3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK
3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK
3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK
2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK
3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK
3200.00   0.00   123   50       195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK
2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK   3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK
3000.00   0.00   124   50       198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK
2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK   2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST
4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK_MAN   13000.00   0.00   100   20
202   Pat
203   Susan   Mavris   SMAVRIS   515.123.7777   1987-09-28   HR_REP   6500.00   0.00   101   40
204   Hermann   Baer   HBAER   515.123.8888   1987-09-29   PR_REP   10000.00   0.00   101   70
205   Shelley   Higgins   SHIGGINS   515.123.8080   1987-09-30   AC_MGR
12000.00   0.00   101   110
8300.00   0.00   205   110



### Sample table: departments

```
DEPARTMENT_ID | DEPARTMENT_NAME
                                 | MANAGER_ID | LOCATION_ID |
    -----+
      10 | Administration
                              200 |
                                       1700 |
      20 | Marketing
                         201 |
                                       1800 |
      30 | Purchasing
                              114 |
                                       1700 |
      40 | Human Resources | 203 |
                                          2400 l
                                      1500 |
      50 | Shipping
                             121 |
      60 | IT
                                     1400 |
                            103 |
      70 | Public Relations |
                              204 |
                                        2700 |
                                     2500 |
      80 | Sales |
                            145 |
      90 | Executive
                           100 |
                                     1700 l
     100 | Finance
                              108 |
                                      1700 l
     110 | Accounting
                              205 |
                                       1700 |
     120 | Treasury
                              0 |
                                      1700 |
     130 | Corporate Tax |
                                 0 |
                                       1700 |
     140 | Control And Credit |
                                 0 |
                                        1700 l
     150 | Shareholder Services |
                                 0 |
                                         1700 |
     160 | Benefits
                                     1700 |
                               0 |
     170 | Manufacturing
                                       1700 |
                                0 |
     180 | Construction
                                0 |
                                       1700 |
     190 | Contracting
                              0 |
                                      1700 |
     200 | Operations
                              0 |
                                       1700 |
     210 | IT Support
                               0 |
                                      1700 |
     220 | NOC
                              0 |
                                     1700 |
     230 | IT Helpdesk
                               0 |
                                       1700 |
     240 | Government Sales |
                                  0 |
                                       1700 |
     250 | Retail Sales |
                               0 |
                                      1700 |
     260 | Recruiting
                               0 |
                                      1700 |
     270 | Payroll
                              0 |
                                     1700 l
```

#### Code:

```
SELECT first_name, last_name

FROM employees

WHERE department_id

IN (SELECT department_id FROM departments WHERE department_name='IT');
```

**3.** Write a query to find the name (first\_name, last\_name) of the employees who have a manager and worked in a USA based department.



Hint: Write single-row and multiple-row subqueries

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN   11000.00   0.00   100   30
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30



120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN
6500.00   0.00   100   50
5800.00   0.00   100   50
3200.00   0.00   120   50       126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK
2700.00   0.00   120   50
2400.00   0.00   120   50       128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK
2200.00   0.00   120   50
129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK   3300.00   0.00   121   50
130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK   2800.00   0.00   121   50
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK   2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50



143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50
144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50
145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN   14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN
13500.00   0.30   100   80
147   Alberto   Effaziliz   ALKKAZOK   011.44.1344.425270   1307 00 05   SA_MAN
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN
11000.00   0.30   100   80
149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN   10500.00   0.20   100   80
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP
10000.00   0.30   145   80
151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   9500.00   0.25   145   80
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP
9000.00   0.25   145   80
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80
158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP
7500.00   0.30   146   80
7000.00   0.25   146   80       162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP
10500.00   0.25   147   80
9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80
165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP   6800.00   0.10   147   80



166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP   6400.00   0.10   147   80
167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP   6200.00   0.10   147   80
168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP
9600.00   0.20   148   80
7400.00   0.15   148   80
7300.00   0.15   148   80
6100.00   0.10   148   80
11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50



189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK
3600.00   0.00   122   50
190   Hmothy   Gates   1GATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK
2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK
4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK
3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK
3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK
2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK
3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK
2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK
2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST
4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK_MAN
13000.00   0.00   100   20
202   Pat
202   Susan   Mayric   SMAVRIS   515 122 7777   11097 00 29   HD DED
203   Susaii   Mavis   SMAVRIS   313.123.7777   1967-09-26   TR_REP
202   Pat
10000.00   0.00   101   70
205   Shelley   Higgins   SHIGGINS   515.123.8080   1987-09-30   AC_MGR
12000.00   0.00   101   110
206   William   Gietz   WGIETZ   515.123.8181   1987-10-01   AC_ACCOUNT
8300.00   0.00   205   110

#### Sample table: departments

+----+ | DEPARTMENT\_ID | DEPARTMENT\_NAME | MANAGER\_ID | LOCATION\_ID | -----+ 10 | Administration | 200 | 1700 | 201 | 20 | Marketing | ∠∪1 | 114 | 1800 | 30 | Purchasing | 1700 | 40 | Human Resources | 203 | 2400 | 50 | Shipping | 121 | 1500 | 103 | 1400 | 60 | IT 70 | Public Relations | 204 | 2700 |



```
80 | Sales |
                      145 |
                                2500 |
                90 | Executive
                        100 l
                                1700 |
100 | Finance
                        108 |
                                 1700 |
                 | 205 |
110 | Accounting
                                 1700 |
120 | Treasury
                        0 |
                                 1700 |
                   1
                        0 | 1700 |
0 | 1700 |
0 | 1700 |
130 | Corporate Tax |
140 | Control And Credit |
150 | Shareholder Services |
                                1700 |
160 | Benefits
                         0 |
180 | Construction | 190 | Contracting | 200 | Operation
                         0 |
                                 1700 |
                    1700 |
                                1700 |
200 | Operations
                                 1700 |
                                1700 |
210 | IT Support
220 | NOC
                                1700 |
                         0 |
230 | IT Helpdesk
                         0 | 1700 |
240 | Government Sales | 0 | 1700 |
250 | Retail Sales |
                          0 |
                                 1700 |
260 | Recruiting
                                 1700 |
                          0 |
270 | Payroll
                  0 |
                                1700 |
```

### Sample table: locations

location_i	d street_address postal_cod	le city	state_province	country_id
1000	1297 Via Cola di Rie 989	Roma	IT	
1100	93091 Calle della Te 10934	Venice	IT	
1200	2017 Shinjuku-ku 1689	Tokyo	Tokyo Prefect	u JP
1300	9450 Kamiya-cho 6823	Hiroshim	a <sup>´</sup> J	Р
1400	2014 Jabberwocky Rd 26192	Southla	ake Texas	US
1500	2011 Interiors Blvd 99236	South Sar	n California	US
1600	2007 Zagora St 50090	South Bru	n New Jersey	US
1700	2004 Charade Rd 98199	Seattle	Washington	US
1800	147 Spadina Ave M5V 2L7	Toronto	Ontario	CA
1900	6092 Boxwood St YSW 9T2	Whiteh	orse Yukon	CA
2000	40-5-12 Laogianggen 190518	Beijing	(	CN
2100	1298 Vileparle (E) 490231	Bombay	Maharashtra	IN
2200	12-98 Victoria Stree 2901	Sydney	New South W	ale AU
2300	198 Clementi North 540198	Singapo	re	SG
2400	8204 Arthur St Lo	ndon	UK	
2500	Magdalen Centre, The OX9 9ZE	3 Oxford	Oxford	UK
2600		293 Stretf	ord Manchest	er UK
2700	Schwanthalerstr. 703 80925	Munich	Bavaria	DE
2800	Rua Frei Caneca 1360 01307-0		aulo Sao Paulo	o BR
2900	20 Rue des Corps-Sai 1730	Geneva	Geneve	CH
3000	Murtenstrasse 921 3095	Bern	BE Ch	1
3100	Pieter Breughelstraa 3029SK		Utrecht	NL
3200	Mariano Escobedo 999 11932	Mexico	Cit Distrito Fed	der MX



```
SELECT first_name, last_name FROM employees
WHERE manager_id in (select employee_id
FROM employees WHERE department_id
IN (SELECT department_id FROM departments WHERE location_id
IN (select location_id from locations where country_id='US')));
```

**4.** Write a query to find the name (first\_name, last\_name) of the employees who are managers.

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN   11000.00   0.00   100   30



115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK
2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN
8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN
7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN
5800.00   0.00   100   50
125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK
3200.00   0.00   120   50
126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK   2700.00   0.00   120   50
127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK   2400.00   0.00   120   50
128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK   2200.00   0.00   120   50
129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK   3300.00   0.00   121   50
130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK   2800.00   0.00   121   50
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK   2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK
3600.00   0.00   123   50



138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK
2700.00   0.00   123   50       140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK
2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK
3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK
2600.00   0.00   124   50
144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50
145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN
14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN
12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN
11000.00   0.30   100   80
149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN   10500.00   0.20   100   80
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP   10000.00   0.30   145   80
151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP
9500.00   0.25   145   80
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP
7500.00   0.20   145   80
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80
158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80



161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80
165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP
6800.00   0.10   147   80
6400.00   0.10   147   80
6200.00   0.10   147   80
11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80
172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP
11000.00   0.30   149   80
8800.00   0.25   149   80       176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP
8600.00   0.20   149   80     177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP
8400.00   0.20   149   80
7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50



104   N
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK
3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK
3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK
2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK
3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK
2800.00   0.00   123   50       196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK
3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK
2600.00   0.00   124   50       199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK
2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST   4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK_MAN
13000.00   0.00   100   20
202   Pat   Fay   PFAY   603.123.6666   1987-09-27   MK_REP   6000.00   0.00   201   20
203   Susan   Mavris   SMAVRIS   515.123.7777   1987-09-28   HR_REP   6500.00   0.00   101   40
204   Hermann   Baer   HBAER   515.123.8888   1987-09-29   PR_REP   10000.00   0.00   101   70
205   Shelley   Higgins   SHIGGINS   515.123.8080   1987-09-30   AC_MGR   12000.00   0.00   101   110
206   William   Gietz   WGIETZ   515.123.8181   1987-10-01   AC_ACCOUNT   8300.00   0.00   205   110



### MySQL Subquery Syntax:

```
operand comparison_operator
operand IN (subquery)
operand comparison_operator SOME (subquery)
```

Where comparison\_operator is one of these operators

```
= > < >= <= <> !=
```

and IN operator checks whether a value is within a set of values.

### For example:

```
mysql> SELECT 2 IN (0,3,5,7);

-> 0

mysql> SELECT 'wefwf' IN ('wee','wefwf','weg');

-> 1
```

When used with a subquery, the word IN is an alias for = ANY. Thus, these two statements are the same:

```
SELECT s1 FROM t1 WHERE s1 = ANY (SELECT s1 FROM t2);

SELECT s1 FROM t1 WHERE s1 IN (SELECT s1 FROM t2);
```

IN and = ANY are not synonyms when used with an expression list. IN can take an expression list, but = ANY cannot.

**5.** Write a query to find the name (first\_name, last\_name), and salary of the employees whose salary is greater than the average salary.

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90



102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG
4200.00   0.00   103   60         108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR
12000.00   0.00   101   100
9000.00   0.00   108   100
8200.00   0.00   108   100
7700.00   0.00   108   100
7800.00   0.00   108   100
6900.00   0.00   108   100
11000.00   0.00   100   30
3100.00   0.00   114   30
2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN   5800.00   0.00   100   50



125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK   3200.00   0.00   120   50
126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK   2700.00   0.00   120   50
127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK   2400.00   0.00   120   50
128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK
2200.00   0.00   120   50
129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK   3300.00   0.00   121   50
130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK
2800.00   0.00   121   50
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK   2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK
2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK
3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK
2900.00   0.00   122   50
135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK
2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK
2500.00     0.00     123     50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50
144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50
145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN
14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN
12000.00   0.30   100   80



148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN   11000.00   0.30   100   80   149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN   10500.00   0.20   100   80   150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP   10000.00   0.30   145   80   151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   19500.00   0.25   145   80   152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   19000.00   0.25   145   80   153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   19000.00   0.20   145   80   154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   17500.00   0.20   145   80   155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   16000.00   0.35   146   80   157   Patrick   Sully   PSULLY   011.44.1345.429268   1987-08-12   SA_REP   19000.00   0.35   146   80   158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   19000.00   0.35   146   80   158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-15   SA_REP   19000.00   0.35   146   80   159   Lindsey   Smith   LSMITH   011.44.1345.529268   1987-08-16   SA_REP   160   Louise   Doran   LDORAN   011.44.1345.529268   1987-08-17   SA_REP   160   Louise   Doran   LDORAN   011.44.1345.529268   1987-08-18   SA_REP   160   Louise   Doran   LDORAN   011.44.1345.529268   1987-08-16   SA_REP   161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-18   SA_REP   162   Clara   Vishney   CVISHNEY   011.44.1346.229268   1987-08-19   SA_REP   164   Mattea   Marvins   MMARVINS   011.44.1346.529268   1987-08-21   SA_REP   165   David   Lee   DLEE   DLEE
150   Peter
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP   10000.00   0.30   145   80     151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   9500.00   0.25   145   80     152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80     153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80     154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80     155   Oliver   Tuvault   OTUVALLT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80     156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   9500.00   0.35   146   80     157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80     158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80     159   Lindsey   Smith   80     159   Lindsey   Smith   80     160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80     160   Louise   Doran   LDORAN   011.44.1345.529268   1987-08-16   SA_REP   7500.00   0.25   146   80     1500.00   0.25   146   80     1500.00   0.25   146   80     161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-18   SA_REP   7500.00   0.25   147   80     163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   7500.00   0.15   147   80     164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7500.00   0.15   147   80     164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7500.00   0.10   147   80
151   David
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80     153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80     154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80     155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7700.00   0.15   145   80     156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   17000.00   0.35   146   80     157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80     158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80     159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   9000.00   0.30   146   80     160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   97500.00   0.25   146   80     161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   97500.00   0.25   146   80     162   Clara   Vishney   CVISHNEY   011.44.1345.229268   1987-08-18   SA_REP   97500.00   0.25   147   80     163   Danielle   Greene   DGREENE   011.44.1346.329268   1987-08-19   SA_REP   97500.00   0.15   147   80
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80   154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80   155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7700.00   0.15   145   80   156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80   157   Patrick   Sully   PSULT   011.44.1345.829268   1987-08-13   SA_REP   10000.00   0.35   146   80   158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   10000.00   0.35   146   80   159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   10000.00   0.30   146   80   160   Louise   Doran   LDORAN   011.44.1345.529268   1987-08-16   SA_REP   10000.00   0.30   146   80   161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   10000.00   0.25   146   80   162   Clara   Vishney   CVISHNEY   011.44.1345.229268   1987-08-18   SA_REP   10500.00   0.25   147   80   164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   10500.00   0.15   147   80   164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   10500.00   0.10   147   80   10000.00   0.10   147   80   10000.00   0.10   0.10   0.147   80   10000.00   0.10   0.147   80   10000.00   0.10   0.147   80   10000.00   0.10   0.147   80   10000.00   0.10   0.147   80   10000.00   0.10   0.147   80   10000.00   0.10   0.147   80   10000.00   0.10   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.147   80   10000.00   0.15   0.
154   Nanette
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80     155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80     156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80     157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80     158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80     159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80     160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.25   146   80     SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   147   80     162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80     164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.15   147   80
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80     156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80     157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80     AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80       SO     SO   SO   SO   SO   SO
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80
156   Janette
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80     158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80     159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80     160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80     SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80     CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80     DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80     164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80
158   Allan
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80
161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80
1 165   David   1 00   DIEE   0.11 44 1246 520269   1,007 00 21   CA DED
165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP   6800.00   0.10   147   80
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP
167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP   6200.00   0.10   147   80
168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80



171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80
172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP
11000.00   0.30   149   80
8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP
8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP
7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK
3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK
4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   3900.00   0.00   123   50



194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK   2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK   3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK   2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK   2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST   4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK_MAN   13000.00   0.00   100   20
202   Pat   Fay   PFAY   603.123.6666   1987-09-27   MK_REP   6000.00   0.00   201   20
203   Susan   Mavris   SMAVRIS   515.123.7777   1987-09-28   HR_REP   6500.00   0.00   101   40
204   Hermann   Baer   HBAER   515.123.8888   1987-09-29   PR_REP   10000.00   0.00   101   70
205   Shelley   Higgins   SHIGGINS   515.123.8080   1987-09-30   AC_MGR   12000.00   0.00   101   110
206   William   Gietz   WGIETZ   515.123.8181   1987-10-01   AC_ACCOUNT   8300.00   0.00   205   110

### Code:

```
SELECT first_name, last_name, salary FROM employees

WHERE salary > (SELECT AVG(salary) FROM employees);
```

**6.** Write a query to find the name (first\_name, last\_name), and salary of the employees whose salary is equal to the minimum salary for their job grade.

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID	
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90	
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90	



102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG
4200.00   0.00   103   60         108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR
12000.00   0.00   101   100
9000.00   0.00   108   100
8200.00   0.00   108   100
7700.00   0.00   108   100
7800.00   0.00   108   100
6900.00   0.00   108   100
11000.00   0.00   100   30
3100.00   0.00   114   30
2900.00   0.00   114   30
2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN   5800.00   0.00   100   50



125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK   3200.00   0.00   120   50
126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK   2700.00   0.00   120   50
127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK   2400.00   0.00   120   50
128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK
2200.00   0.00   120   50
3300.00   0.00   121   50       130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK
2800.00   0.00   121   50       131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK
2500.00   0.00   121   50
2100.00   0.00   121   50
3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50
144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50
145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN   14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80



1100  0.30   100   80	148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN
10500.00   0.20   100   80     100   80     150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP   1000.00   0.30   145   80     151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   9500.00   0.25   145   80     152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80     152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80     153   Christopher   Olsen   80     154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-09   SA_REP   8000.00   0.20   145   80     155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80     156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80     157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80     158   Alian   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80     159   Lindsey   Smith   LSMITH   011.44.1345.29268   1987-08-16   SA_REP   9000.00   0.30   146   80     161   Sarath   Sewall   SEWALL   011.44.1345.529268   1987-08-16   SA_REP   10500.00   0.25   147   80     163   Danielle   Greene   DGRENEE   011.44.1346.29268   1987-08-19   SA_REP   9500.00   0.15   147   80     166   Sundar   Ande   Marvins   MARVINS   011.44.1346.29268   1987-08-19   SA_REP   9500.00   0.10   147   80     166   Sundar   Ande   Ande   ANDE   Olit.44.1346.29268   1987-08-22   SA_REP   9500.00   0.10   147   80     166   Sundar   Ande   ANDE   Olit.44.1346.29268   1987-08-23   SA_REP   9500.00   0.10   147   80     166   Sundar   Ande   ANDE   Olit.44.1346.29268   1987-08-23   SA_REP   9500.00   0.10   147   80     166   Sundar   Ande   ANDE   Olit.44.1346.29268   1987-08-23   SA_REP   9500.00   0.10   147   80     166   Sundar   Ande   ANDE   Olit.44.1346.29268   1987-08-24   SA_REP   166   Harrison   Bloom   HBLOOM   011.44.1343.329268   1987-08-25   SA_REP   16700.00	146   Gerald
150   Peter	
10000.00   0.30   145   80     151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   9500.00   0.25   145   80     152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80     153   Christopher   Olsen   800   0.20   145   80     153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80     154   Nanette   Combrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80     155   Oliver   Tuvault   OTUVAULT   011.44.1344.987668   1987-08-11   SA_REP   7000.00   0.15   145   80     157   Patrick   Sully   PSULLY   011.44.1345.429268   1987-08-12   SA_REP   9500.00   0.35   146   80     158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80     158   Allan   McEwen   Sol	
151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   9500.00   0.25   145   80     145   80     145   80     145   80     145   80     145   80     145   80     145   80     145   80     145   80     145   80     145   80     145   80     145   80     145   80     145   80     145   80     153   Christopher   Olsen   O.20   145   80     154   Nanette   Cambrault   NCAMBRAU   011.44.1344.498768   1987-08-09   SA_REP   7500.00   0.20   145   80     155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7500.00   0.15   145   80     156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80     157   Patrick   Sully   PSULLY   011.44.1345.429268   1987-08-13   SA_REP   7500.00   0.35   146   80     159   Lindsey   Smith   LSMITH   011.44.1345.829268   1987-08-14   SA_REP   7500.00   0.30   146   80     160   Louise   Doran   LDORAN   011.44.1345.29268   1987-08-17   SA_REP   7500.00   0.25   146   80     161   Sarath   Sewall   SSEWALL   011.44.1345.29268   1987-08-18   SA_REP   7500.00   0.25   147   80     163   Danielle   Greene   DGREENE   011.44.1346.129268   1987-08-19   SA_REP   7500.00   0.15   147   80     165   David   Lee   DGREENE   011.44.1346.29268   1987-08-20   SA_REP   7500.00   0.10   147   80     166   Sundar   Ande   SANDE   011.44.1346.29268   1987-08-22   SA_REP   1660.00   0.10   147   80     166   Sundar   Ande   SANDE   011.44.1346.59268   1987-08-22   SA_REP   1660.00   0.10   147   80     166   Sundar   Ande   SANDE   011.44.1346.59268   1987-08-22   SA_REP   1660.00   0.10   147   80     166   Sundar   Ande   SANDE   011.44.1346.79268   1987-08-22   SA_REP   1660.00   0.10   147   80     166   Sundar   Ande   SANDE   011.44.1346.329268   1987-08-22   SA_REP   1660.00   0.10   147   80     166   Sundar   Ande   SANDE   011.44.1346.79268   1987-08-24   SA_REP   1660.00   0.25   148   80     169   Harrison   Bloom   HBLOOM   011.44.1343.729268   1987-08-26   SA_REP   11500.00   0.25   148   80	
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80     153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80     154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80     155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80     156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80     157   Patrick   Sully   PSULLY   011.44.1345.429268   1987-08-13   SA_REP   9500.00   0.35   146   80     159   Lindsey   Smith   LSMITH   011.44.1345.829268   1987-08-14   SA_REP   8000.00   0.30   146   80     160   Louise   Doran   LDORAN   011.44.1345.529268   1987-08-16   SA_REP   7500.00   0.25   146   80     161   Sarath   Sewall   Sewall   Sewall   Sewall   162   Clara   Vishney   CVISHNEY   011.44.1345.529268   1987-08-19   SA_REP   10500.00   0.25   147   80     164   Mattea   Marvins   Name   Nam	
9000.00   0.25   145   80     153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80	9500.00   0.25   145   80
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80     145   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80     155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80     156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   7000.00   0.35   146   80     157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   7000.00   0.35   146   80     158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-13   SA_REP   7000.00   0.35   146   80     159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   7000.00   0.30   146   80     160   Louise   Doran   LDORAN   011.44.1345.529268   1987-08-16   SA_REP   7000.00   0.25   146   80     162   Clara   Vishney   CVISHNEY   011.44.1345.529268   1987-08-18   SA_REP   7000.00   0.25   147   80     163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   7000.00   0.15   147   80     166   Sundar   Ande   Marvins   7200.00   0.10   147   80     166   Sundar   Ande   SANDE   011.44.1346.529268   1987-08-22   SA_REP   7000.00   0.10   147   80     166   Sundar   Ande   SANDE   011.44.1346.229268   1987-08-23   SA_REP   7000.00   0.10   147   80   168   Lisa   Ozer   LOZER   011.44.1346.229268   1987-08-23   SA_REP   7000.00   0.10   147   80   166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-23   SA_REP   7000.00   0.10   147   80   166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-23   SA_REP   7000.00   0.25   148   80   168   Lisa   Ozer   LOZER   011.44.1343.3929268   1987-08-24   SA_REP   7000.00   0.25   148   80   169   Harrison   180000   0.20   148   80   169   Harrison   180000   0.20   148   80   1600000   0.20   148   80   16000000   0.20   148   80   160000000   0.20   148   80   160000000   0.20   148   80   160000000   0.20   148   80   160000000   0.20   148   80   1600000000   0.20   0100000000   0.20	
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80     155   Oliver   Tuvault   OTUVAULT   011.44.1344.987668   1987-08-11   SA_REP   7000.00   0.15   145   80     145   80     145   80     145   80     145   80     145   80     145   80     146   80     146   80     156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   9500.00   0.35   146   80     157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9000.00   0.35   146   80     158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80     159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80     159   Lindsey   Smith   SEWALL   011.44.1345.529268   1987-08-16   SA_REP   7500.00   0.30   146   80     161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-16   SA_REP   7500.00   0.25   146   80     162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80     164   Mattea   Marvins   MMARVINS   011.44.1346.229268   1987-08-20   SA_REP   9500.00   0.15   147   80     166   Sundar   Ande   Marvins   Amelia   Amelia	
154   Nanette	155   Chiristopher   Olsen
155   Oliver	154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80	
156   Janette	
10000.00   0.35   146   80	
158   Allan	10000.00   0.35   146   80
158   Allan	
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80	
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80	9000.00   0.35   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80	159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP
161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80	
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80	7500.00   0.30   146   80
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80	
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80	
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80	
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80	163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA REP
7200.00   0.10   147   80	164   Mattea   Marvins   MMARVINS   011 44 1346 329268   1987-08-20   SA REP
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP   6400.00   0.10   147   80	
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP   6400.00   0.10   147   80	
6400.00         0.10         147         80           1 167   Amit         Banda           ABANDA         011.44.1346.729268         1987-08-23         SA_REP           6200.00         0.10         147         80                   168   Lisa           Ozer           LOZER         011.44.1343.929268         1987-08-24         SA_REP           11500.00         0.25         148         80                   169   Harrison           Bloom           HBLOOM         011.44.1343.829268         1987-08-25         SA_REP           10000.00         0.20         148         80                   170   Tayler           Fox           TFOX         011.44.1343.729268         1987-08-26         SA_REP	
6200.00   0.10   147   80     168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80     169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80     170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP	
168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80	
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80	168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP	169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP
9600.00   0.20   148   80	



171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80
172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP
11000.00   0.30   149   80
8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP
8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP
7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK
3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK
4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK
4000.00   0.00   123   50         193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK
3900.00   0.00   123   50



194   Samuel   McCain   SMCCAIN   650.501.3876	1987-09-19   SH_CLERK_
3200.00   0.00   123   50	1 250. 05 25 [ O.I022 ]
195   Vance   Jones   VJONES   650.501.4876	1987-09-20   SH_CLERK
2800.00   0.00   123   50	
196   Alana   Walsh   AWALSH   650.507.9811	1987-09-21   SH_CLERK
3100.00   0.00   124   50	
197   Kevin   Feeney   KFEENEY   650.507.9822	1987-09-22   SH_CLERK
3000.00   0.00   124   50	
198   Donald   OConnell   DOCONNEL   650.507.9833	1987-09-23   SH_CLERK
2600.00   0.00   124   50	
199   Douglas   Grant   DGRANT   650.507.9844	1987-09-24   SH_CLERK
2600.00   0.00   124   50	
200   Jennifer   Whalen   JWHALEN   515.123.4444	1987-09-25   AD_ASST
4400.00   0.00   101   10	14007.00.26   1447.1441
201   Michael   Hartstein   MHARTSTE   515.123.5555	1987-09-26   MK_MAN
13000.00   0.00   100   20	007.00.07.1.M// DED. 1.6000.00.1
202   Pat   Fay   PFAY   603.123.6666   1   0.00   201   20	.987-09-27   MK_REP   6000.00
203   Susan   Mavris   SMAVRIS   515.123.7777	1007 00 30   HD DED
203   Susaii   Mavris   SMAVRIS   313.123.7777   6500.00   0.00   101   40	1967-09-26   HK_KEP
204   Hermann   Baer   HBAER   515.123.8888	1087_00_20   DD DED
10000.00   0.00   101   70	1907-09-29   FK_KLF
205   Shelley   Higgins   SHIGGINS   515.123.8080	1987-09-30   AC MGR
12000.00   0.00   101   110	1507 05 50   AC_NGK
206   William   Gietz   WGIETZ   515.123.8181	1987-10-01   AC ACCOUNT
8300.00   0.00   205   110	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
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# Sample table: jobs

+	<b>+</b>	+-	+	+
JOB_ID	JOB_TITLE	•	•	MAX_SALARY
AD_VP AD_ASST FI_MGR FI_ACCOUN AC_MGR AC_ACCOU SA_MAN SA_REP PU_MAN	President	dent	15000   3000   3000   8200   4200   8200   4200   6000   8000   2500   2500	40000   30000   6000   16000   9000   16000   9000   20000   12000   15000   8500
. –	!	•	•	•



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| SH_CLERK | Shipping Clerk
                                           2500 |
                                                     5500 |
          | Programmer
                                           4000 l
| IT_PROG
                                                     10000 |
| MK_MAN
            | Marketing Manager
                                             9000 |
                                                       15000 |
| MK_REP
           | Marketing Representative
                                              4000 |
                                                        9000 |
| HR REP
           | Human Resources Representative | 4000 |
                                                           9000 |
| PR_REP
           | Public Relations Representative |
                                              4500 |
                                                        10500 |
```

### Code:

```
SELECT first_name, last_name, salary
```

FROM employees

WHERE employees.salary = (SELECT min\_salary

FROM jobs

WHERE employees.job\_id = jobs.job\_id);

**7.** Write a query to find the name (first\_name, last\_name), and salary of the employees who earns more than the average salary and works in any of the IT departments.

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100



111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT
7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT
6900.00   0.00   108   100
114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN
11000.00   0.00   100   30
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK
3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK
2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK
2800.00   0.00   114   30
2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK
2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN
8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN
8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST MAN
7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN
6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN
5800.00   0.00   100   50
125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK   3200.00   0.00   120   50
126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK
2700.00   0.00   120   50
127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK
2400.00   0.00   120   50
128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK
2200.00   0.00   120   50
129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK   3300.00   0.00   121   50
130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK
2800.00   0.00   121   50
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK
2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK
2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK
3300.00   0.00   122   50



134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK
3600.00   0.00   123   50       138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK
3200.00   0.00   123   50       139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK
2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK
3100.00   0.00   124   50       143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK
2600.00   0.00   124   50     144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK
2500.00   0.00   124   50
145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN   14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN   11000.00   0.30   100   80
149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN
10500.00   0.20   100   80
10000.00   0.30   145   80
9500.00   0.25   145   80
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP
7000.00   0.15   145   80



157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80
158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP
9000.00   0.35   146   80
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP
7500.00   0.30   146   80
161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP
7000.00   0.25   146   80
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP
9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP
7200.00   0.10   147   80
165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP   6800.00   0.10   147   80
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP
6400.00   0.10   147   80
167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP
6200.00   0.10   147   80
168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80
172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP   11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP
6200.00   0.10   149   80



180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK
4100.00   0.00   121   50       186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   131   50
3400.00   0.00   121   50       187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   121
3000.00   0.00   121   50       188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   1987-09-13   SH_CLERK
3800.00   0.00   122   50       189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK
3600.00   0.00   122   50       190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK
2900.00   0.00   122   50     191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK
2500.00   0.00   122   50     192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK
4000.00   0.00   123   50       193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK
3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK   2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK   3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK   2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK   2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST   4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK_MAN   13000.00   0.00   100   20
202   Pat



203   Susan   Mavris   SMAVRIS   515.123.7777   6500.00   0.00   101   40	1987-09-28   HR_REP
204   Hermann   Baer   HBAER   515.123.8888   10000.00   0.00   101   70	1987-09-29   PR_REP
205   Shelley   Higgins   SHIGGINS   515.123.8080	1987-09-30   AC_MGR
206   William   Gietz   WGIETZ   515.123.8181   8300.00   0.00   205   110	1987-10-01   AC_ACCOUNT

### Sample table: departments

```
+----+
| DEPARTMENT_ID | DEPARTMENT_NAME | MANAGER_ID | LOCATION_ID |
  -----+
                             200 |
       10 | Administration
                                      1700 l
       20 | Marketing
                        201 |
                                      1800 |
       30 | Purchasing
                              114 |
                                      1700 l
       40 | Human Resources
                           | 203 |
                                         2400 |
       50 | Shipping |
                             121 |
                                     1500 |
       60 | IT
                      103 l
                                    1400 |
       70 | Public Relations | 204 |
                                       2700 |
       80 | Sales
                      - 1
                            145 |
                                    2500 l
      90 | Executive
                            100 |
                                    1700 |
                             108 |
      100 | Finance
                                      1700 |
      110 | Accounting
                             205 I
                                     1700 l
      120 | Treasury
                              0 |
                                     1700 |
      130 | Corporate Tax
                                0 |
                                     1700 |
                         140 | Control And Credit |
                                 0 |
                                       1700 |
      150 | Shareholder Services |
                                 0 |
                                       1700 l
                              0 |
                                     1700 l
      160 | Benefits
      170 | Manufacturing
                              0 |
                                      1700 |
      180 | Construction
                               0 |
                                      1700 |
      190 | Contracting
                                      1700 |
                               0 |
      200 | Operations
                              0 |
                                      1700 l
      210 | IT Support
                               0 |
                                      1700 l
      220 | NOC
                              0 |
                                     1700 |
      230 | IT Helpdesk
                                      1700 |
                               0 |
                               0 |
                                     1700 |
      240 | Government Sales
                                     1700 l
      250 | Retail Sales
                               0 |
                              0 |
      260 | Recruiting
                                     1700 l
      270 | Payroll
                              0 |
                                    1700 |
```

### Code:

SELECT first\_name, last\_name, salary

FROM employees



WHERE department\_id IN

(SELECT department\_id FROM departments WHERE department\_name LIKE 'IT%')

AND salary > (SELECT avg(salary) FROM employees);

**8.** Write a query to find the name (first\_name, last\_name), and salary of the employees who earns more than the earning of Mr. Bell.

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN   11000.00   0.00   100   30
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30



117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN
7900.00   0.00   100   50
6500.00   0.00   100   50
5800.00   0.00   100   50
3200.00   0.00   120   50       126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK
2700.00   0.00   120   50       127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK
2400.00   0.00   120   50       128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK
2200.00   0.00   120   50       129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK
3300.00   0.00   121   50
2800.00   0.00   121   50     131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK
2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50



140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK
2600.00   0.00   124   50
2500.00   0.00   124   50       145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN
14000.00   0.40   100   80
13500.00   0.30   100   80
12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN   11000.00   0.30   100   80
149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN   10500.00   0.20   100   80
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP   10000.00   0.30   145   80
151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   9500.00   0.25   145   80
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80
158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80
161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP
7000.00   0.25   146   80



163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP
9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP
7200.00   0.10   147   80
6800.00   0.10   147   80
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP
6400.00   0.10   147   80
167   Amit
6200.00   0.10   147   80
11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP
10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP
7400.00   0.15   148   80
172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP
7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP
11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP
8800.00   0.25   149   80
8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP
8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP
6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK
3100.00   0.00   120   50
2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK
4200.00   0.00   121   50
4100.00   0.00   121   50



186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK
3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK
3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK
2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK
3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK
2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK
3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK
2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK   2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST
4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK_MAN
13000.00   0.00   100   20
0.00   201   20
203   Susan   Mavris   SMAVRIS   515.123.7777   1987-09-28   HR_REP   6500.00   0.00   101   40
204   Hermann   Baer   HBAER   515.123.8888   1987-09-29   PR_REP   10000.00   0.00   101   70
205   Shelley   Higgins   SHIGGINS   515.123.8080   1987-09-30   AC_MGR   12000.00   0.00   101   110
206   William   Gietz   WGIETZ   515.123.8181   1987-10-01   AC_ACCOUNT
8300.00   0.00   205   110

# **Sample table: departments**

+-----



```
-----+
                               200 |
                                       1700 |
       10 | Administration
       20 | Marketing
                         201 |
                                       1800 |
       30 | Purchasing
                              114 |
                                       1700 l
       40 | Human Resources
                            203 |
                                         2400 |
       50 | Shipping
                             121 |
                                      1500 l
       60 | IT
                                    1400 |
                       103 |
       70 | Public Relations |
                               204 |
                                       2700 |
       80 | Sales
                             145 |
                                     2500 I
                      90 | Executive
                              100 |
                                      1700 |
      100 | Finance
                         108 |
                                      1700 |
      110 | Accounting
                               205 |
                                       1700 |
      120 | Treasury
                               0 |
                                      1700 l
                         1
      130 | Corporate Tax
                         0 |
                                       1700 l
      140 | Control And Credit |
                                 0 |
                                        1700 |
      150 | Shareholder Services |
                                  0 |
                                        1700 l
      160 | Benefits
                                     1700 |
                               0 |
      170 | Manufacturing
                                0 |
                                       1700 |
      180 | Construction
                                       1700 |
                                0 |
      190 | Contracting
                               0 |
                                      1700 |
      200 | Operations
                              0 1
                                      1700 l
      210 | IT Support
                               0 |
                                      1700 |
      220 I NOC
                                     1700 l
                               0 |
      230 | IT Helpdesk
                                      1700 |
                                0 |
      240 | Government Sales
                               0 |
                                        1700 |
      250 | Retail Sales
                               0 |
                                      1700 |
                                      1700 |
      260 | Recruiting
                               0 |
      270 | Payroll
                        0 |
                                     1700 l
```

```
FROM employees
WHERE salary >

(SELECT salary FROM employees WHERE last_name = 'Bell') ORDER BY first_name;
```

**9.** Write a query to find the name (first\_name, last\_name), and salary of the employees who earn the same salary as the minimum salary for all departments.

EMPLOYEE_ID   FIRST_NAME   LAST   JOB_ID   SALARY   COMMISSION_	「_NAME   EMAIL   PHONE _PCT   MANAGER_ID   DEPAR	
100   Steven   King   S 24000.00   0.00   0	KING   515.123.4567 90	1987-06-17   AD_PRES



101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG
4200.00   0.00   103   60
12000.00   0.00   101   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT
8200.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT
6900.00   0.00   108   100
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50



124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN   5800.00   0.00   100   50
125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK   3200.00   0.00   120   50
126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK   2700.00   0.00   120   50
127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK
2400.00   0.00   120   50
2200.00   0.00   120   50       129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK
3300.00   0.00   121   50
2800.00   0.00   121   50         131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK
2500.00   0.00   121   50     132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK
2100.00   0.00   121   50     133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK
3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50
144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50
145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN   14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN



147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN
11000.00   0.30   100   80
149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN   10500.00   0.20   100   80
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP
10000.00   0.30   145   80
151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP
9500.00   0.25   145   80
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP
8000.00   0.20   145   80
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP
7500.00   0.20   145   80
155   Oliver   Tuvadit   OTOVAOLT   OTT.44.1544.486508   1987-08-11   SA_REP
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP
10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP
9500.00   0.35   146   80       158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP
9000.00   0.35   146   80
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP
7500.00   0.30   146   80
161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP
9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80
165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP   6800.00   0.10   147   80
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP   6400.00   0.10   147   80
167   Amit
168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP
11500.00   0.25   148   80
10000.00   0.20   148   80



170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80
172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP
7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP
11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP
8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP
8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP
7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP
6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK
3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK
2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK
4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK
3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK
2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK
4000.00   0.00   123   50



193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK   2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK   3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK   2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK   2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST   4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK_MAN   13000.00   0.00   100   20
202   Pat   Fay   PFAY   603.123.6666   1987-09-27   MK_REP   6000.00   0.00   201   20
203   Susan   Mavris   SMAVRIS   515.123.7777   1987-09-28   HR_REP   6500.00   0.00   101   40
204   Hermann   Baer   HBAER   515.123.8888   1987-09-29   PR_REP   10000.00   0.00   101   70
205   Shelley   Higgins   SHIGGINS   515.123.8080   1987-09-30   AC_MGR   12000.00   0.00   101   110
206   William   Gietz   WGIETZ   515.123.8181   1987-10-01   AC_ACCOUNT   8300.00   0.00   205   110

## Sample table: departments

```
-----+
| DEPARTMENT_ID | DEPARTMENT_NAME | MANAGER_ID | LOCATION_ID |
 +-----+
                                10 | Administration | 200 |
                                                                                                                                                                                 1700 |
                                20 | Marketing | 201 | 30 | Purchasing | 114 |
                                                                                                                                                                                  1800 |
                                                                                                                                                                                  1700 |
                                40 | Human Resources | 203 | 2400 |
                                50 | Shipping |
                                                                                                                                 121 |
                                                                                                                                                                                1500 |
                                60 | IT
                                                                                                                                                                        1400 |
                                                                                                 103 |
                                70 | Public Relations | 204 |
                                                                                                                                                                                     2700 |
                           145 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 
                                80 | Sales |
                                                                                                                                                                            2500 |
                                                                                                                              145 |
                                                                                                                                                                          1700 |
                                                                                                                                                                                 1700 |
                                                                                                                                                                                 1700 |
                                                                                                                                                                              1700 l
                                                                                                                                           ١٥
                              130 | Corporate Tax |
                                                                                                                                                                                     1700 |
                              140 | Control And Credit |
                                                                                                                                                  0 |
                                                                                                                                                                                        1700 |
```



```
150 | Shareholder Services |
                                0 |
                                        1700 |
160 | Benefits
                                    1700 |
                            0 |
170 | Manufacturing
                              0 |
                                      1700 |
180 | Construction
                              0 |
                                      1700 |
190 | Contracting
                                     1700 |
                             0 |
                             0 |
200 | Operations
                                     1700 |
210 | IT Support
                             0 |
                                     1700 |
220 | NOC
                            0 |
                                    1700 |
230 | IT Helpdesk
                             0 |
                                      1700 |
240 | Government Sales
                                      1700 |
                               0 |
                             0 |
250 | Retail Sales
                                     1700 |
260 | Recruiting
                             0 |
                                     1700 |
                                   1700 |
270 | Payroll
                           0 |
```

```
SELECT * FROM employees

WHERE salary = (SELECT MIN(salary) FROM employees);
```

**10.** Write a query to find the name (first\_name, last\_name), and salary of the employees whose salary is greater than the average salary of all departments.

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100



109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT
7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
114   Den
11000.00   0.00   100   30
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK
3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK
2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK
2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK
2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN
8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN
5800.00   0.00   100   50
125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK   3200.00   0.00   120   50
126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK
2700.00   0.00   120   50       127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK
2400.00   0.00   120   50
128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK   2200.00   0.00   120   50
129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK   3300.00   0.00   121   50
130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK
130   MOZITE   AKKIISOT   MATKINSO   630.124.0234   1967-07-17   31_CLERK     2800.00   0.00   121   50
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK
2500.00   0.00   121   50



132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK
2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK
2700.00   0.00   123   50       140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK
2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50
144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK
2500.00   0.00   124   50
14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN   11000.00   0.30   100   80
149   Eleni
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP
10000.00   0.30   145   80
9500.00   0.25   145   80
9000.00   0.25   145   80
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80



155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80
158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80
161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80
165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP   6800.00   0.10   147   80
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP   6400.00   0.10   147   80
167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP   6200.00   0.10   147   80
168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80
172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP   11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   8400.00   0.20   149   80



178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK
3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK
2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK
4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK
3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK
3000.00   0.00   121   50
3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK   2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK   3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK   2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK   2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST   4400.00   0.00   101   10



201   Michael   Hartstein   MHARTSTE   515.123.5555   198	87-09-26   MK_MAN
202   Pat	-27   MK_REP   6000.00
203   Susan   Mavris   SMAVRIS   515.123.7777   1987	7-09-28   HR_REP
204   Hermann   Baer   HBAER   515.123.8888   1987   10000.00   0.00   101   70	7-09-29   PR_REP
205   Shelley   Higgins   SHIGGINS   515.123.8080   1987   12000.00   0.00   101   110	7-09-30   AC_MGR
206   William   Gietz   WGIETZ   515.123.8181   1987- 8300.00   0.00   205   110	10-01   AC_ACCOUNT

SELECT \* FROM employees

WHERE salary >

ALL(SELECT avg(salary)FROM employees GROUP BY department\_id);

Copy

### **Explanation:**

MySQL Subquery with ALL:

Syntax:

### operand comparison\_operator ALL (subquery)

The word ALL, which must follow a comparison operator, means "return TRUE if the comparison is TRUE for ALL of the values in the column that the subquery returns." For example:

```
SELECT s1 FROM t1 WHERE s1 > ALL (SELECT s1 FROM t2);
```

Suppose that there is a row in table t1 containing (10). The expression is TRUE if table t2 contains (-5,0,+5) because 10 is greater than all three values in t2. The expression is FALSE if table t2 contains (12,6,NULL,-100) because there is a single value 12 in table t2 that is greater than 10. The expression is unknown (that is, NULL) if table t2 contains (0,NULL,1).

Finally, the expression is TRUE if table t2 is empty. So, the following expression is TRUE when table t2 is empty :

SELECT \* FROM t1 WHERE 1 > ALL (SELECT s1 FROM t2);



**11.** Write a query to find the name (first\_name, last\_name) and salary of the employees who earn a salary that is higher than the salary of all the Shipping Clerk (JOB\_ID = 'SH\_CLERK'). Sort the results of the salary of the lowest to highest.

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE
JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP
17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN   11000.00   0.00   100   30
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30



119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN
6500.00   0.00   100   50
5800.00   0.00   100   50           125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK
3200.00   0.00   120   50
2700.00   0.00   120   50       127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK
2400.00   0.00   120   50       128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK
2200.00   0.00   120   50       129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK
3300.00   0.00   121   50
2800.00   0.00   121   50     131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK
2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50     135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00
135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50



142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50
144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50
145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN   14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN
12000.00   0.30   100   80
11000.00   0.30   100   80
10500.00   0.20   100   80
10000.00   0.30   145   80
9500.00   0.25   145   80     152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP
9000.00   0.25   145   80
153   Christopher   Olsen
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80
158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80
161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80



165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP   6800.00   0.10   147   80	
6400.00   0.10   147   80     167   Amit	165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP   6800.00   0.10   147   80
167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP   16200.00   0.00   147   80   11500.00   0.25   148   80   11500.00   0.25   148   80   11500.00   0.20   148   80   11500.00   0.20   148   80   11500.00   0.20   148   80   11500.00   0.20   148   80   11500.00   0.20   148   80   11500.00   0.20   148   80   11500.00   0.20   148   80   11500.00   0.20   148   80   11500.00   0.20   148   80   11500.00   0.20   148   80   11500.00   0.20   148   80   11500.00   0.20   148   80   11500.00   0.25   148   80   11500.00   0.15   148   80   11500.00   0.15   148   80   11500.00   0.15   148   80   11500.00   0.15   148   80   11500.00   0.15   148   80   11500.00   0.15   148   80   11500.00   0.15   148   80   11500.00   0.15   148   80   11500.00   0.15   148   80   11500.00   0.15   148   80   11500.00   0.15   148   80   11500.00   0.15   148   80   11500.00   0.15   148   80   11500.00   0.15   148   80   11500.00   0.15   148   80   11500.00   0.20   149   80	
168   Lisa	167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80	168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP
170   Tayler   Fox   17FOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80   171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80   148   80   172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80   177   Elizabeth   Bates   SU   173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   10100.00   0.10   148   80   1474   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP   10100.00   0.30   149   80   175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   800.00   0.25   149   80   176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   800.00   0.20   149   80   149   80   177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   800.00   0.20   149   80   149   80   149   80   149   80   149   80   149   80   149   80   149   80   149   80   149   80   149   80   149   80   149   80   149   80   149   80   149   80   149   80   149   80   140	169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP
171   William	170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP
172   Elizabeth   Bates   Cartesta   114.4.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80	171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA REP
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80	7400.00   0.15   148   80
174   Ellen	7300.00   0.15   148   80
11000.00   0.30   149   80	6100.00   0.10   148   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   800.00   0.20   149   80	11000.00   0.30   149   80
177   Jack	8800.00   0.25   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   7000.00   0.15   149   0	
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   6200.00   0.10   149   80     180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   3200.00   0.00   120   50     181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50     182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50     183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50     184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50     185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50     186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50     187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK	8400.00   0.20   149   80
179   Charles	178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   7000.00   0.15   149   0
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   3200.00   0.00   120   50	179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP
181   Jean	180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50     183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50     184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50     185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50     186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50     187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK	181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50	182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50     185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50     186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50     187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK	183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50     186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50     187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK	
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50     187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK	
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK	186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK
	187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK



188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH CLERK
2900.00   0.00   122   50
2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK   2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK   3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK   2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK   2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST   4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK_MAN   13000.00   0.00   100   20
202   Pat   Fay   PFAY   603.123.6666   1987-09-27   MK_REP   6000.00
0.00   201   20     203   Susan   Mavris   SMAVRIS   515.123.7777   1987-09-28   HR_REP   6500.00   0.00   101   40
204   Hermann   Baer   HBAER   515.123.8888   1987-09-29   PR_REP   10000.00   0.00   101   70
205   Shelley   Higgins   SHIGGINS   515.123.8080   1987-09-30   AC_MGR   12000.00   0.00   101   110
206   William   Gietz   WGIETZ   515.123.8181   1987-10-01   AC_ACCOUNT   8300.00   0.00   205   110

SELECT first\_name,last\_name, job\_id, salary

FROM employees

WHERE salary >



ALL (SELECT salary FROM employees WHERE job\_id = 'SH\_CLERK') ORDER BY salary;

Copy

### **Explanation:**

MySQL Subquery with ALL:

Syntax:

### operand comparison\_operator ALL (subquery)

The word ALL, which must follow a comparison operator, means "return TRUE if the comparison is TRUE for ALL of the values in the column that the subquery returns." For example:

```
SELECT s1 FROM t1 WHERE s1 > ALL (SELECT s1 FROM t2);
```

Copy

Suppose that there is a row in table t1 containing (10). The expression is TRUE if table t2 contains (-5,0,+5) because 10 is greater than all three values in t2. The expression is FALSE if table t2 contains (12,6,NULL,-100) because there is a single value 12 in table t2 that is greater than 10. The expression is unknown (that is, NULL) if table t2 contains (0,NULL,1).

Finally, the expression is TRUE if table t2 is empty. So, the following expression is TRUE when table t2 is empty :

```
SELECT * FROM t1 WHERE 1 > ALL (SELECT s1 FROM t2);
```

**12.** Write a query to find the name (first\_name, last\_name) of the employees who are not supervisors.

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60



106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
114   Den
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN   5800.00   0.00   100   50
125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK   3200.00   0.00   120   50
126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK   2700.00   0.00   120   50
127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK   2400.00   0.00   120   50
128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK   2200.00   0.00   120   50



129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK   3300.00   0.00   121   50
130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK   2800.00   0.00   121   50
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK   2500.00   0.00   121   50
132   TJ
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK
3300.00   0.00   122   50       134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK       1987-07-21   ST_CLERK
2900.00   0.00   122   50       135   Ki
0.00   122   50     136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK
2200.00   0.00   122   50       137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK
3600.00   0.00   123   50       138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK
3200.00   0.00   123   50       139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK
2700.00   0.00   123   50       140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK
2500.00   0.00   123   50       141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK
3500.00   0.00   124   50
3100.00   0.00   124   50     143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK
2600.00   0.00   124   50
144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50
14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN   11000.00   0.30   100   80
149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN   10500.00   0.20   100   80
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP   10000.00   0.30   145   80
151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   9500.00   0.25   145   80



152   Peter	
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.000   0.20   145   80	152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80     145   80       155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP     10000.00   0.15   145   80       156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP     10000.00   0.35   146   80       157   Patrick   Sully   PSULLY   011.44.1345.429268   1987-08-13   SA_REP   9500.00   0.35   146   80	153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP
155   Oliver	
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80     157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80     168   Mines   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80     159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-14   SA_REP   9000.00   0.30   146   80     160   Louise   Doran   LDORAN   011.44.1345.729268   1987-08-16   SA_REP   7500.00   0.30   146   80     161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-16   SA_REP   10500.00   0.25   146   80     162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80     163   Danielle   Greene   DGREENE   011.44.1346.129268   1987-08-19   SA_REP   10500.00   0.15   147   80     164   Mattea   Marvins   Marv	
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80   157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80   146   80   158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80   159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   9000.00   0.30   146   80   1	
1000.00   0.35   146   80	
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80   146   80   158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80   146   80   159   Lindsey   Smith   LSMITH   011.44.1345.829268   1987-08-15   SA_REP   9000.00   0.30   146   80   160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   9000.00   0.30   146   80   11.44.1345.629268   1987-08-16   SA_REP   9000.00   0.30   146   80   11.44.1345.629268   1987-08-16   SA_REP   9000.00   0.25   146   80   11.44.1345.529268   1987-08-17   SA_REP   9000.00   0.25   147   80   163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80   148   80   144   80   148   80   148   80   148   80   148   80   148   80   144   80   148   80   144	
9500.00   0.35   146   80	
9000.00   0.35   146   80	
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80	158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP
160   100   146   80     146   80     160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80     161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80     162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   70500.00   0.25   147   80     163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   70500.00   0.15   147   80     164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   70500.00   0.10   147   80     165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP   6800.00   0.10   147   80     SANDE   011.44.1346.629268   1987-08-22   SA_REP   6400.00   0.10   147   80     SANDE   011.44.1346.729268   1987-08-22   SA_REP   6200.00   0.10   147   80     SANDE   011.44.1346.729268   1987-08-23   SA_REP   6200.00   0.10   147   80     SANDE   011.44.1346.729268   1987-08-23   SA_REP   6200.00   0.10   147   80     SANDE   011.44.1343.929268   1987-08-24   SA_REP   6200.00   0.25   148   80     SANDE   SANDE   011.44.1343.829268   1987-08-25   SA_REP   11500.00   0.25   148   80     SANDE   SANDE   011.44.1343.829268   1987-08-25   SA_REP   11500.00   0.20   148   80     SANDE   SAND	159   Lindsey   Smith   LISMITH   011 44 1345 729268   1987-08-15   SA REP
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80	8000.00   0.30   146   80
161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80	
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80	
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80	
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80	162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP
9500.00   0.15   147   80	
165   David	163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80
165   David   Lee	
166   Sundar	165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP
167   Amit	
168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80	6400.00   0.10   147   80
168   Lisa	167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP   6200.00   0.10   147   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80	168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80	
9600.00   0.20   148   80     171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80     172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80     173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80     174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP	$\mathbf{r}$
7400.00       0.15       148       80               172   Elizabeth   Bates         EBATES         011.44.1343.529268         1987-08-28       SA_REP         7300.00       0.15       148       80               173   Sundita   Kumar         SKUMAR         011.44.1343.329268         1987-08-29       SA_REP         6100.00       0.10       148       80               174   Ellen       Abel         EABEL         011.44.1644.429267         1987-08-30       SA_REP	
7300.00   0.15   148   80	$\mathbf{r}$
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80     174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP	
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP	173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP
	174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP



175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP
8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP
7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP
6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK
3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK
162   Martila   Sullivan   MSCLETVA   050.307.9878   1967-09-07   STI_CLERK
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK
2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK
4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK
4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK
3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK
3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK
2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK
192   Salah   Bell   SBELL   630.301.1876   1967-09-17   SH_CLERK
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK   2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK   3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50



198   Donald   OConnell   DOCONNEL   650.507.9833   2600.00   0.00   124   50	3   1987-09-23   SH_CLERK
199   Douglas   Grant   DGRANT   650.507.9844 2600.00   0.00   124   50	1987-09-24   SH_CLERK
200   Jennifer   Whalen   JWHALEN   515.123.4444	1987-09-25   AD_ASST
201   Michael   Hartstein   MHARTSTE   515.123.5555	1987-09-26   MK_MAN
202   Pat	1987-09-27   MK_REP   6000.00
203   Susan   Mavris   SMAVRIS   515.123.7777   6500.00   0.00   101   40	1987-09-28   HR_REP
204   Hermann   Baer   HBAER   515.123.8888   10000.00   0.00   101   70	1987-09-29   PR_REP
205   Shelley   Higgins   SHIGGINS   515.123.8080	1987-09-30   AC_MGR
206   William   Gietz   WGIETZ   515.123.8181   8300.00   0.00   205   110	1987-10-01   AC_ACCOUNT

SELECT b.first\_name,b.last\_name

FROM employees b

WHERE NOT EXISTS (SELECT 'X' FROM employees a WHERE a.manager\_id = b.employee\_id);

Copy

### **Explanation:**

MySQL Subquery with EXISTS or NOT EXISTS

If a subquery returns any rows at all, EXISTS subquery is TRUE, and NOT EXISTS subquery is FALSE. For example :

### SELECT column1 FROM t1 WHERE EXISTS (SELECT \* FROM t2);

Traditionally, an EXISTS subquery starts with SELECT \*, but it could begin with SELECT 5 or SELECT column1 or anything at all. MySQL ignores the SELECT list in such a subquery, so it makes no difference.

**13.** Write a query to display the employee ID, first name, last name, and department names of all employees.



EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN   11000.00   0.00   100   30
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50



121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN
5800.00   0.00   100   50
3200.00   0.00   120   50       126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK
2700.00   0.00   120   50       127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK
2400.00   0.00   120   50
2200.00   0.00   120   50       129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK
3300.00   0.00   121   50
130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK   2800.00   0.00   121   50
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK   2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50



144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50
14000.00   0.40   100   80     146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80       147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80         148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN   11000.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN   11000.00   0.30   100   80
149   Eleni
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP   10000.00   0.30   145   80
10000.00   0.30   145   80
152   Peter
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80
158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80
161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80
165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP   6800.00   0.10   147   80
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP   6400.00   0.10   147   80



167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP   6200.00   0.10   147   80
168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP
9600.00   0.20   148   80
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80
172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP
11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP
7000.00   0.15   149   0
6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK
4200.00   0.00   121   50       185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50
4100.00   0.00   121   50       186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK
3400.00   0.00   121   50
3000.00   0.00   121   50
3800.00   0.00   122   50       189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK
3600.00   0.00   122   50



190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK   2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK   3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK   2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK   2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST   4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK_MAN   13000.00   0.00   100   20
202   Pat   Fay   PFAY   603.123.6666   1987-09-27   MK_REP   6000.00   0.00   201   20
203   Susan   Mavris   SMAVRIS   515.123.7777   1987-09-28   HR_REP   6500.00   0.00   101   40
204   Hermann   Baer   HBAER   515.123.8888   1987-09-29   PR_REP   10000.00   0.00   101   70
205   Shelley   Higgins   SHIGGINS   515.123.8080   1987-09-30   AC_MGR   12000.00   0.00   101   110
206   William   Gietz   WGIETZ   515.123.8181   1987-10-01   AC_ACCOUNT   8300.00   0.00   205   110

### Sample table: departments



```
80 | Sales
                           145 |
                                     2500 |
90 | Executive
                                       1700 |
                            100 |
100 | Finance
                            108 |
                                       1700 |
110 | Accounting
                             205 |
                                        1700 |
120 | Treasury
                              0 |
                                      1700 |
130 | Corporate Tax
                                0 |
                                        1700 |
140 | Control And Credit |
                                 0 |
                                         1700 |
                                  0 |
150 | Shareholder Services |
                                          1700 |
160 | Benefits
                             0 |
                                     1700 |
170 | Manufacturing
                                0 |
                                        1700 |
180 | Construction
                               0 |
                                       1700 |
190 | Contracting
                              0 |
                                       1700 |
200 | Operations
                              0 |
                                       1700 |
210 | IT Support
                              0 |
                                       1700 |
220 | NOC
                             0 |
                                     1700 |
230 | IT Helpdesk
                               0 |
                                       1700 |
240 | Government Sales
                                          1700 |
250 | Retail Sales
                              0 |
                                      1700 |
260 | Recruiting
                              0 |
                                      1700 |
270 | Payroll
                             0 |
                                     1700 |
```

```
SELECT employee_id, first_name, last_name,

(SELECT department_name FROM departments d

WHERE e.department_id = d.department_id) department

FROM employees e ORDER BY department;
```

**14.** Write a query to display the employee ID, first name, last name, salary of all employees whose salary is above average for their departments.

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex



103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG
4200.00   0.00   103   60             108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR
12000.00   0.00   101   100
9000.00   0.00   108   100
8200.00   0.00   108   100
7700.00   0.00   108   100
7800.00   0.00   108   100
6900.00   0.00   108   100
11000.00   0.00   100   30
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN   5800.00   0.00   100   50
125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK   3200.00   0.00   120   50



126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK   2700.00   0.00   120   50
127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK   2400.00   0.00   120   50
128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK   2200.00   0.00   120   50
129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK   3300.00   0.00   121   50
130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK   2800.00   0.00   121   50
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK   2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
136   Stephen   Stiles   SSTILES   650.121.2034   1967-07-25   ST_CLERK
139   John     380     J320     030.121.2019     1987-07-20   31_CLERK
140   Joshida   Fatel   JFATEL   050.121.1034   1907-07-27   31_CLERK   2500.00   0.00   123   50       141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK
3500.00   0.00   124   50       142     Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK
3100.00   0.00   124   50     143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK
2600.00   0.00   124   50     144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK
2500.00   0.00   124   50
14000.00   0.40   100   80
13500.00   0.30   100   80
12000.00   0.30   100   80
11000.00   0.30   100   80



149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN   10500.00   0.20   100   80
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP   10000.00   0.30   145   80
151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   9500.00   0.25   145   80
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80
153   Christopher   Olsen
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP
7500.00   0.20   145   80
7000.00   0.15   145   80
10000.00   0.35   146   80
9500.00   0.35   146   80
9000.00   0.35   146   80
8000.00   0.30   146   80
7500.00   0.30   146   80
7000.00   0.25   146   80
10500.00   0.25   147   80           163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP
9500.00   0.15   147   80
7200.00   0.10   147   80
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP   6400.00   0.10   147   80
167   Amit
168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80



172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP
11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP
8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK
3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK
3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK
4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK
3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK
4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50
2200.00   0.00   123   30



195   Vance   Jones		1987-09-20   SH_CLERK
2800.00   0.00   123	50	
196   Alana   Walsh	AWALSH   650.507.9811	1987-09-21   SH_CLERK
3100.00   0.00   124	50	
197   Kevin   Feeney	KFEENEY   650.507.9822	1987-09-22   SH_CLERK
3000.00   0.00   124	50	
198   Donald   OConne	II   DOCONNEL   650.507.9833	3   1987-09-23   SH_CLERK
2600.00   0.00   124	50	
		1987-09-24   SH_CLERK
2600.00   0.00   124		
200   Jennifer   Whalen		1987-09-25   AD ASST
4400.00   0.00   101		
201   Michael   Hartstei		1987-09-26   MK_MAN
13000.00   0.00   100	20	
202   Pat   Fay	PFAY   603.123.6666	1987-09-27   MK_REP   6000.00
0.00   201   20		. –
203   Susan   Mavris		1987-09-28   HR REP
6500.00   0.00   101		
204   Hermann   Baer		1987-09-29   PR REP
10000.00   0.00   101		
205   Shelley   Higgins		1987-09-30   AC MGR
12000.00   0.00   101		,
206   William   Gietz		1987-10-01   AC ACCOUNT
		,
8300.00   0.00   205	110	

#### Sample table: departments

```
+----+
                                | MANAGER_ID | LOCATION_ID |
| DEPARTMENT_ID | DEPARTMENT_NAME
 -----+
       10 | Administration |
                             200 |
                                      1700 |
       20 | Marketing
                              201 l
                                      1800 l
       30 | Purchasing
                              114 |
                                      1700 |
       40 | Human Resources
                          203 |
                                         2400 |
       50 | Shipping
                             121 |
                                      1500 |
       60 | IT
                           103 |
                                    1400 |
       70 | Public Relations |
                                       2700 I
                              204 I
                            145 |
       80 | Sales
                      2500 |
      90 | Executive
                             100 |
                                      1700 l
      100 | Finance
                             108 |
                                      1700 |
      110 | Accounting
                              205 |
                                      1700 |
                        120 | Treasury
                               0 I
                                     1700 l
      130 | Corporate Tax
                                0 |
                                       1700 |
      140 | Control And Credit |
                                 0 |
                                       1700 |
      150 | Shareholder Services |
                                  0 |
                                        1700 |
      160 | Benefits
                                     1700 |
                              0 |
      170 | Manufacturing
                                0 |
                                       1700 |
      180 | Construction
                                0 |
                                      1700 |
      190 | Contracting
                               0 |
                                      1700 |
      200 | Operations
                               0 |
                                      1700 |
```



```
210 | IT Support
                          0 |
                                1700 |
220 | NOC
                                1700 |
                         0 |
230 | IT Helpdesk
                         0 |
                                1700 |
240 | Government Sales |
                          0 | 1700 |
250 | Retail Sales |
                          0 |
                                 1700 |
260 | Recruiting
                         0 |
                                1700 |
270 | Payroll
                  0 |
                                1700 |
```

```
SELECT employee_id, first_name

FROM employees AS A

WHERE salary >

(SELECT AVG(salary) FROM employees WHERE department_id = A.department_id);
```

**15.** Write a query to fetch even numbered records from employees table.

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES
24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP
17000.00   0.00   100   90
102   Lex
17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG
9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG
6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG
4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG
4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG
4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR
[12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT
9000.00   0.00   108   100



110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis
114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN
11000.00   0.00   100   30
3100.00   0.00   114   30
2900.00   0.00   114   30
2800.00   0.00   114   30
2600.00   0.00   114   30
2500.00   0.00   114   30
8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN   5800.00   0.00   100   50
125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK   3200.00   0.00   120   50
126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK   2700.00   0.00   120   50
127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK   2400.00   0.00   120   50
128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK   2200.00   0.00   120   50
129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK   3300.00   0.00   121   50
130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK   2800.00   0.00   121   50
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK   2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50



133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK
2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK
2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50
144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK
2500.00   0.00   124   50
145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN   14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN
11000.00   0.30   100   80
149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN   10500.00   0.20   100   80
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP   10000.00   0.30   145   80
151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   9500.00   0.25   145   80
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80
153   Christopher   Olsen
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP
7500.00   0.20   145   80
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80



156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80
158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80
161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP
7000.00   0.25   146   80
10500.00   0.25   147   80
9500.00   0.15   147   80
7200.00   0.10   147   80
6800.00   0.10   147   80
6400.00   0.10   147   80     167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP
6200.00   0.10   147   80     168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP
11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80
172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP   11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   7000.00   0.15   149   0



179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK   2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK   3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK   2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK   2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST   4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK_MAN   13000.00   0.00   100   20



202   Pat   0.00   201	Fay   P 20	FAY   603.123.666	6   1987-09-27   MK_REP	6000.00
203   Susan   6500.00   0.00	Mavris 0   101	SMAVRIS   515.123 40	3.7777   1987-09-28   HR_REP	
204   Herman   10000.00   0.0	n   Baer 00   101	HBAER   515.123   70	3.8888   1987-09-29   PR_REP	I
205   Shelley   12000.00   0.0	Higgins 00   101	SHIGGINS   515.123 110	3.8080   1987-09-30   AC_MGF	₹
206   William   8300.00   0.00		WGIETZ   515.123.	8181   1987-10-01   AC_ACCO	UNT

```
SET @i = 0;

SELECT i, employee_id

FROM (SELECT @i := @i + 1 AS i, employee_id FROM employees)

a WHERE MOD(a.i, 2) = 0;
```

### Copy

The code have been executed in MySQL Version: 5.4.

#### Here is the output

**16.** Write a query to find the 5th maximum salary in the employees table.



EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis
114   Den
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50



122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN   5800.00   0.00   100   50
125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK
3200.00   0.00   120   50       126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK
2700.00   0.00   120   50       127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK
2400.00   0.00   120   50       128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK
2200.00   0.00   120   50
3300.00   0.00   121   50
2800.00   0.00   121   50
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK   2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50
144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50



T			
145   14000.00			JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN   80
			KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN
			80
12000 00 1	Alberto 0.30	Errazuriz   100	AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN     80
			t   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN
			80
			EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN
		•	80
			PTUCKER   011.44.1344.129268   1987-08-06   SA_REP
			80
151 9500.00			DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   80
			PHALL   011.44.1344.478968   1987-08-08   SA_REP
			80
153	Christophe	r   Olsen	COLSEN   011.44.1344.498718   1987-08-09   SA_REP   80
			t   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP
7500.00			
			OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP
7000.00	0.15	145	80
			JKING   011.44.1345.429268   1987-08-12   SA_REP   80
157	Patrick	Sully	PSULLY   011.44.1345.929268   1987-08-13   SA_REP
			80
158   9000.00	Allan     0.35	McEwen 146 I	AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   80
			LSMITH   011.44.1345.729268   1987-08-15   SA_REP
			80
160 7500.00	Louise	Doran	LDORAN   011.44.1345.629268   1987-08-16   SA_REP
161	I Sarath	l Sewall	SSEWALL   011.44.1345.529268   1987-08-17   SA_REP
7000.00	0.25	146	80
162 10500.00	Clara   0.25	Vishney   147	CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   80
		Greene   147	DGREENE   011.44.1346.229268   1987-08-19   SA_REP   80
•	Mattea   0.10	Marvins   147	MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   80
· · · · · · · · · · · · · · · · · · ·	<u>.</u>	Lee     147	DLEE   011.44.1346.529268   1987-08-21   SA_REP   80
	Sundar   0.10	Ande   147	SANDE   011.44.1346.629268   1987-08-22   SA_REP   80
	Amit   0.10	Banda 147	ABANDA   011.44.1346.729268   1987-08-23   SA_REP   80



168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80
172   Elizabeth   Bates   LEBATES   011.44.1343.529268   1987-08-28   SA REP
7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP   11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP
8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50



191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK
2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK
4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK
3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK
3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK
2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK
3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50
3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK
2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK
2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST
4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK_MAN
13000.00   0.00   100   20
202   Pat
0.00   201   20
203   Susan   Mavris   SMAVRIS   515.123.7777   1987-09-28   HR_REP
6500.00   0.00   101   40
204   Hermann   Baer   HBAER   515.123.8888   1987-09-29   PR_REP
10000.00   0.00   101   70
205   Shelley   Higgins   SHIGGINS   515.123.8080   1987-09-30   AC_MGR
12000.00   0.00   101   110
206   William   Gietz   WGIETZ   515.123.8181   1987-10-01   AC_ACCOUNT
8300.00   0.00   205   110
0.00   0.00   20.5   110

```
FROM employees e1

WHERE 5 = (SELECT COUNT(DISTINCT salary)

FROM employees e2

WHERE e2.salary >= e1.salary);
```

**17.** Write a query to find the 4th minimum salary in the employees table.



LEMPLOYEE TO LEDGE NAME LLACE NAME LEMATH LIDHONE NUMBER LLIDE DATE L
EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG
9000.00   0.00   102   60
6000.00   0.00   103   60
4800.00   0.00   103   60       106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG
4800.00   0.00   103   60       107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG
4200.00   0.00   103   60
12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN   11000.00   0.00   100   30
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK
2800.00   0.00   114   30
2600.00   0.00   114   30
2500.00   0.00   114   30
8000.00   0.00   100   50



121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN
5800.00   0.00   100   50
3200.00   0.00   120   50       126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK
2700.00   0.00   120   50       127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK
2400.00   0.00   120   50
2200.00   0.00   120   50       129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK
3300.00   0.00   121   50
130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK   2800.00   0.00   121   50
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK   2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50



144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50
145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN   14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN   11000.00   0.30   100   80
149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN
10500.00   0.20   100   80
10000.00   0.30   145   80
9500.00   0.25   145   80
9000.00   0.25   145   80
8000.00   0.20   145   80     154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP
7500.00   0.20   145   80
7000.00   0.15   145   80
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80
158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80
161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80
165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP   6800.00   0.10   147   80
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP   6400.00   0.10   147   80



167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP   6200.00   0.10   147   80
168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP
10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80
172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP
7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP
11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP
8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP
8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP
6200.00   0.10   149   80       180     Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK
3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK
2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK
3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK
169   Seminer   Biny



100   77   11   10   1   170
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK   2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK   3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK   2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK   2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST   4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK_MAN   13000.00   0.00   100   20
202   Pat   Fay   PFAY   603.123.6666   1987-09-27   MK_REP   6000.00
203   Susan   Mavris   SMAVRIS   515.123.7777   1987-09-28   HR_REP   6500.00   0.00   101   40
204   Hermann   Baer   HBAER   515.123.8888   1987-09-29   PR_REP   10000.00   0.00   101   70
205   Shelley   Higgins   SHIGGINS   515.123.8080   1987-09-30   AC_MGR   12000.00   0.00   101   110
206   William   Gietz   WGIETZ   515.123.8181   1987-10-01   AC_ACCOUNT   8300.00   0.00   205   110

```
FROM employees e1

WHERE 4 = (SELECT COUNT(DISTINCT salary)

FROM employees e2
```

**18.** Write a query to select last 10 records from a table.

WHERE e2.salary <= e1.salary);



LEMBLOVEE ID LEIDCE NAME LLACE NAME LEMATH LIDUONE NUMBER LLIERE DATE L
EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN   11000.00   0.00   100   30
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50



121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN
5800.00   0.00   100   50
3200.00   0.00   120   50       126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK
2700.00   0.00   120   50
2400.00   0.00   120   50
2200.00   0.00   120   50       129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK
3300.00   0.00   121   50
130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK   2800.00   0.00   121   50
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK   2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50
135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50



144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50
145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN   14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN
11000.00   0.30   100   80
149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN
10500.00   0.20   100   80
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP   10000.00   0.30   145   80
151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   9500.00   0.25   145   80
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP
9000.00   0.25   145   80
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP
7500.00   0.20   145   80
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80
158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP
8000.00   0.30   146   80
7500.00   0.30   146   80     161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP
7000.00   0.25   146   80
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80
165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP   6800.00   0.10   147   80
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP   6400.00   0.10   147   80



167   Amit
11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP
7400 00   0 15   148   80
172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP
7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP   11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP
8600.00   0.20   149   80       177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP
8400.00   0.20   149   80
7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   3600.00   0.00   122   50



190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK   2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK   3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK   2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK   2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST   4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK_MAN   13000.00   0.00   100   20
202   Pat   Fay   PFAY   603.123.6666   1987-09-27   MK_REP   6000.00   0.00   201   20
0.00   201   20     203   Susan   Mavris   SMAVRIS   515.123.7777   1987-09-28   HR_REP     6500.00   0.00   101   40
204   Hermann   Baer   HBAER   515.123.8888   1987-09-29   PR_REP   10000.00   0.00   101   70
205   Shelley   Higgins   SHIGGINS   515.123.8080   1987-09-30   AC_MGR   12000.00   0.00   101   110
206   William   Gietz   WGIETZ   515.123.8181   1987-10-01   AC_ACCOUNT   8300.00   0.00   205   110

```
SELECT * FROM (

SELECT * FROM employees ORDER BY employee_id DESC LIMIT 10) sub

ORDER BY employee_id ASC;
```

**19.** Write a query to list the department ID and name of all the departments where no employee is working.



EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
114   Den
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50



122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN   5800.00   0.00   100   50
125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK   3200.00   0.00   120   50
126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK
2700.00   0.00   120   50
2400.00   0.00   120   50
2200.00   0.00   120   50       129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK
3300.00   0.00   121   50
2800.00   0.00   121   50
2500.00   0.00   121   50
2100.00   0.00   121   50
3300.00   0.00   122   50       134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK
2900.00   0.00   122   50
135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK   2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50
144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50
· · · · · · · · · · · · · · · · · · ·



145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN   14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN
11000.00   0.30   100   80
149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN
10500.00   0.20   100   80
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP
10000.00   0.30   145   80
151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   9500.00   0.25   145   80
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP
9000.00   0.25   145   80
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP
8000.00   0.20   145   80
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP
7000.00   0.15   145   80
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80
158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80
161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.25   147   80
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80
165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP   6800.00   0.10   147   80
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP   6400.00   0.10   147   80
167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP   6200.00   0.10   147   80



168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP
7400.00   0.15   148   80
7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP
6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP   11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP
8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK
3600.00   0.00   122   50     190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK
2900.00   0.00   122   50



191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK
3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK
3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK
2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK
3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50
3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK
2600.00   0.00   124   50
199   Douglas   Grant   DGRANT   650.507.9844   1987-09-24   SH_CLERK
2600.00   0.00   124   50
200   Jennifer   Whalen   JWHALEN   515.123.4444   1987-09-25   AD_ASST
4400.00   0.00   101   10
201   Michael   Hartstein   MHARTSTE   515.123.5555   1987-09-26   MK_MAN
13000.00   0.00   100   20
202   Pat
0.00   201   20
202   Cusps
203   Susan   Mavris   SMAVRIS   515.123.7777   1987-09-28   HR_REP
6500.00   0.00   101   40
204   Hermann   Baer   HBAER   515.123.8888   1987-09-29   PR_REP
10000.00   0.00   101   70
205   Shelley   Higgins   SHIGGINS   515.123.8080   1987-09-30   AC_MGR
12000.00   0.00   101   110
206   William   Gietz   WGIETZ   515.123.8181   1987-10-01   AC_ACCOUNT
8300.00   0.00   205   110

#### Sample table: departments

+----+ | DEPARTMENT\_ID | DEPARTMENT\_NAME | MANAGER\_ID | LOCATION\_ID | -----+ 10 | Administration | 200 | 20 | Marketing | 201 | 30 | Purchasing | 114 | 1700 | 1800 | 1700 | 40 | Human Resources | 203 | 2400 | 50 | Shipping | 121 | 1500 | 60 | IT 103 | 1400 | 70 | Public Relations | 204 | 2700 | 

 80 | Sales
 |
 145 |

 90 | Executive
 |
 100 |

 100 | Finance
 |
 108 |

 2500 | 1700 l 100 | Finance | 110 | Accounting | 1700 | 205 | 1700 |



```
120 | Treasury
                              0 |
                                      1700 |
 130 | Corporate Tax
                                0 |
                                        1700 l
 140 | Control And Credit |
                                0 |
                                        1700 |
 150 | Shareholder Services |
                                  0 |
                                         1700 |
 160 | Benefits
                              0 |
                                     1700 |
 170 | Manufacturing
                               0 |
                                        1700 |
 180 | Construction
                               0 |
                                       1700 l
 190 | Contracting
                               0 |
                                      1700 |
 200 | Operations
                               0 |
                                      1700 |
 210 | IT Support
                              0 |
                                      1700 |
                             0 |
 220 | NOC
                                     1700 |
 230 | IT Helpdesk
                               0 |
                                       1700 |
 240 | Government Sales
                                 0 |
                                          1700 |
 250 | Retail Sales
                              0 |
                                      1700 |
 260 | Recruiting
                                      1700 |
                              0 |
 270 | Payroll
                      0 |
                                     1700 |
-----
```

```
SELECT * FROM departments

WHERE department_id

NOT IN (select department_id FROM employees);
```

**20.** Write a query to get 3 maximum salaries.

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE   JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES   24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60



107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
114   Den
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN   5800.00   0.00   100   50
125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK   3200.00   0.00   120   50
126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK   2700.00   0.00   120   50
127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK   2400.00   0.00   120   50
128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK   2200.00   0.00   120   50
129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK   3300.00   0.00   121   50



130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK   2800.00   0.00   121   50
131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK   2500.00   0.00   121   50
132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK
2900.00   0.00   122   50
0.00   122   50     136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK
2200.00   0.00   122   50       137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK
3600.00   0.00   123   50       138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK
3200.00   0.00   123   50       139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK
2700.00   0.00   123   50     140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK
2500.00   0.00   123   50     141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK
3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50
144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50
145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN   14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN   11000.00   0.30   100   80
149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN   10500.00   0.20   100   80
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP   10000.00   0.30   145   80
151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   9500.00   0.25   145   80
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80
2000.00   0.23   151   00

# **Java Enterprise Edition**



153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80
156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80
158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP
9000.00   0.35   146   80
8000.00   0.30   146   80
7500.00   0.30   146   80
7000.00   0.25   146   80
10500.00   0.25   147   80
9500.00   0.15   147   80
7200.00   0.10   147   80
6800.00   0.10   147   80
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP   6400.00   0.10   147   80
167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP   6200.00   0.10   147   80
168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80
170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP   7400.00   0.15   148   80
172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP   6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP   11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80



176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP
6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK
2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK
4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   3900.00   0.00   123   50
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50
195   Vance   Jones   VJONES   650.501.4876   1987-09-20   SH_CLERK   2800.00   0.00   123   50
196   Alana   Walsh   AWALSH   650.507.9811   1987-09-21   SH_CLERK   3100.00   0.00   124   50
197   Kevin   Feeney   KFEENEY   650.507.9822   1987-09-22   SH_CLERK   3000.00   0.00   124   50
198   Donald   OConnell   DOCONNEL   650.507.9833   1987-09-23   SH_CLERK   2600.00   0.00   124   50
·



199   Douglas   Grant   DGR   2600.00   0.00   124	ANT   650.507.9844   1987-0 50	9-24   SH_CLERK
200   Jennifer   Whalen   JWH 4400.00   0.00   101	·	9-25   AD_ASST
201   Michael   Hartstein   MHA   13000.00   0.00   100	·	09-26   MK_MAN
202   Pat   Fay   PFAY   0.00   201   20	603.123.6666   1987-09-27	MK_REP   6000.00
203   Susan   Mavris   SMA'   6500.00   0.00   101	·	9-28   HR_REP
204   Hermann   Baer   HBA   10000.00   0.00   101		9-29   PR_REP
205   Shelley   Higgins   SHIG 12000.00   0.00   101		9-30   AC_MGR
206   William   Gietz   WGIE 8300.00   0.00   205		-01   AC_ACCOUNT

#### Code:

```
FROM employees a

WHERE 3 >= (SELECT COUNT(DISTINCT salary)

FROM employees b

WHERE b.salary >= a.salary)

ORDER BY a.salary DESC;
```

**21.** Write a query to get 3 minimum salaries.

# Sample table: employees

EMPLOYEE_ID   FIRST_NAME   LAST_NAME   EMAIL   PHONE_NUMBER   HIRE_DATE
JOB_ID   SALARY   COMMISSION_PCT   MANAGER_ID   DEPARTMENT_ID
100   Steven   King   SKING   515.123.4567   1987-06-17   AD_PRES
24000.00   0.00   0   90
101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP
17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP
17000.00   0.00   100   90



103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60	
104   Bruce	103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60   1987-06-23   IT_PROG   4800.00   0.00   103   60   1987-06-23   IT_PROG   4800.00   0.00   103   60   1987-06-24   IT_PROG   4800.00   0.00   101   100   1987-06-25   IT_MGR   4800.00   0.00   101   100   100   1987-06-25   IT_MGR   4800.00   0.00   108   100   1987-06-26   IT_ACCOUNT   4800.00   0.00   108   100   1987-06-26   IT_ACCOUNT   4800.00   0.00   108   100   1987-06-27   IT_ACCOUNT   4800.00   0.00   108   100   1987-06-27   IT_ACCOUNT   4800.00   0.00   108   100   1987-06-27   IT_ACCOUNT   4800.00   0.00   108   100   1987-06-29   IT_ACCOUNT   4800.00   0.00   108   100   100   108   100   100   108   100   100   108   100	104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG
106   Valii	105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60   101   100   100   101   100   100   101   100   100   101   100   100   101   100   100   108   100   108   100   101   100   100   108   100   101   100   100   108   100   100   108   100   100   108   100   100   108   100   100   108   100   100   108   100   100   108   100   100   108   100   100   108   100   100   108   100   100   108   100   100   100   108   100   100   100   108   100	106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG
108   Nancy	107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100   100   108   100   100   108   100   100   108   100   108   100   108   100   108   100   108   100   108   100   108   100   108   100   108   100   108   100   108   100   108   100   108   100   108   100   112   Jose Manuel   Urman   JMURMAN   515.124.4369   1987-06-28   FI_ACCOUNT   7800.00   0.00   108   100   108   100   114   Den   Raphaely   DRAPHEAL   515.124.4469   1987-06-30   FI_ACCOUNT   7800.00   0.00   108   100   108   100   114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN   11000.00   0.00   114   30   114   30   114   30   114   30   114   30   114   30   114   30   114   30   117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30   114   30   119   Karen   Clemenres   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30   119   Karen   Clemenres   KCOLMENA   515.127.4566   1987-07-07   ST_MAN   8200.00   0.00   100   50   114   30   122   Payam   Kaufling   PKAUPLINIA   550.123.1234   1987-07-08   ST_MAN   8200.00   0.00   100   50   114   30   122   Payam   Kaufling   PKAUPLINIA   550.123.1234   1987-07-09   ST_MAN   8200.00   0.00   100   50   112   SS_NAUR   SS_NAU	108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100     111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100     112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100     113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100     114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN   11000.00   0.00   100   30     115   Alexander   Khoo   JAKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30     116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30     117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30     118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30     119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30     120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50     121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-09   ST_MAN   8200.00   0.00   100   50     122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-01   ST_MAN   8500.00   0.00   100   50     123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50	
111	
100   0.00   108   100     112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   17800.00   0.00   108   100	8200.00   0.00   108   100
113   Luis	7700.00   0.00   108   100
114   Den	7800.00   0.00   108   100
11000.00   0.00   100   30	113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30	114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN   11000.00   0.00   100   30
116   Shelli	115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK
117   Sigal	116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK
118   Guy	117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK
119   Karen	118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU CLERK
121   Adam	119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK
8200.00         0.00         100         50                   122   Payam           Kaufling           PKAUFLIN         650.123.3234           1987-07-09         ST_MAN           7900.00         0.00         100         50                   123   Shanta           Vollman           SVOLLMAN         650.123.4234           1987-07-10         ST_MAN           6500.00         0.00         100         50                   124   Kevin           Mourgos           KMOURGOS         650.123.5234           1987-07-11         ST_MAN           5800.00         0.00         100         50                   125         Julia         Nayer         JNAYER         650.124.1214         1987-07-12         ST_CLERK	· · · · · · · · · · · · · · · · · · ·
7900.00   0.00   100   50      123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50      124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN   5800.00   0.00   100   50      125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK	
6500.00   0.00   100   50	
124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN   5800.00   0.00   100   50	123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN
125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK	124   Kevin   Mourgos   KMOURGOS   650.123.5234   1987-07-11   ST_MAN
	125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK



126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK   2700.00   0.00   120   50
127   James   Landry   JLANDRY   650.124.1334   1987-07-14   ST_CLERK   2400.00   0.00   120   50
128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK   2200.00   0.00   120   50
129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK   3300.00   0.00   121   50
130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK
2800.00   0.00   121   50
2500.00   0.00   121   50
2100.00   0.00   121   50
3300.00   0.00   122   50       134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK
2900.00   0.00   122   50
0.00   122   50     136   Hazel   Philtanker   HPHILTAN   650.127.1634   1987-07-23   ST_CLERK
2200.00   0.00   122   50
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50
144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50
145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN   14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80
147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN   11000.00   0.30   100   80



149   Eleni	
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP   10000.00   0.30   145   80     151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP   9500.00   0.25   145   80     152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80     153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   9000.00   0.20   145   80     154   Nanette   Cambrault   NCAMBRAU   011.44.1344.4987668   1987-08-10   SA_REP   7000.00   0.20   145   80     155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80     155   Oliver   Tuvault   OTUVAULT   011.44.1345.429268   1987-08-12   SA_REP   9000.00   0.35   146   80     157   Patrick   Sully   PSULLY   011.44.1345.429268   1987-08-13   SA_REP   9000.00   0.35   146   80     158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80     159   Lindsey   Smith   S000.00   0.30   146   80     159   Lindsey   Smith   S000.00   0.30   146   80     159   Lindsey   Smith   Sewall   LSMITH   011.44.1345.529268   1987-08-16   SA_REP   9000.00   0.25   146   80     160   Louise   Doran   LODRAN   011.44.1345.529268   1987-08-16   SA_REP   9000.00   0.25   146   80     162   Clara   Vishney   CUSHNEY   011.44.1345.229268   1987-08-19   SA_REP   9000.00   0.15   147   80     165   David   Lee   DEEE   011.44.1346.229268   1987-08-19   SA_REP   9000.00   0.10   147   80     166   Sundar   Andre   An	149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN   10500.00   0.20   100   80
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80   1153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.00   0.20   145   80   146   80	
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80	151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP   8000.000   0.20   145   80	152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80   145   00.00   0.15   145   80   145   00.00   0.15   145   80   145   80   145   80   146   80   157   Patrick   Sully   PSULLY   011.44.1345.429268   1987-08-12   SA_REP   9500.00   0.35   146   80   146   80   158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80   1	153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP   7000.00   0.15   145   80     156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP   10000.00   0.35   146   80     157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80     158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP   9000.00   0.35   146   80     159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   800.00   0.30   146   80     160   Louise   Doran   LDORAN   011.44.1345.829268   1987-08-15   SA_REP   7500.00   0.25   146   80       SSWALL   011.44.1345.529268   1987-08-16   SA_REP   7500.00   0.25   147   80       162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP   10500.00   0.15   147   80       164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.15   147   80       166   Sundar   Ande   Lee   DEEE   011.44.1346.529268   1987-08-21   SA_REP   7200.00   0.10   147   80       167   Amit   Banda   Ande   And	
156   Janette	7500.00   0.20   145   80
157	
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP   9500.00   0.35   146   80	156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP
158   Allan	157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80	158   Allan   McEwen   AMCEWEN   011.44.1345.829268   1987-08-14   SA_REP
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80	159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP
161   Sarath	160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP
162   Clara	161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80	
164   Mattea	10500.00   0.25   147   80
165   David	9500.00   0.15   147   80
165   David   Lee	164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80
6400.00   0.10   147   80	165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP
167   Amit	
168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80	167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP
10000.00   0.20   148   80     170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80     171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP	168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP
9600.00   0.20   148   80	$\vdots \qquad \vdots \qquad \vdots \qquad \vdots \qquad \vdots \qquad \vdots$
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP	170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP
	171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP



1300.00	
100.00   0.10   148   80	172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80
174   Ellen	173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80   176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   80   177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   80   178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-02   SA_REP   80   178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   1000.00   0.15   149   0   0   120   149   80   179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   1200.00   0.00   120   50   180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   1200.00   0.00   120   50   181   Jean   Fleaur   JFLEAUR   550.507.9877   1987-09-06   SH_CLERK   1200.00   0.00   120   50   182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   1200.00   0.00   120   50   183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   1200.00   0.00   120   50   120   50   185   Alexis   Bull   ABULL   650.507.9876   1987-09-10   SH_CLERK   1200.00   0.00   121   50   185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   1200.00   0.00   121   50   188   Kelly   Chung   KCHUNG   650.509.4876   1987-09-11   SH_CLERK   1200.00   0.00   121   50   188   Kelly   Chung   KCHUNG   650.505.2876   1987-09-12   SH_CLERK   1200.00   0.00   122   50   188   Kelly   Chung   KCHUNG   650.505.2876   1987-09-14   SH_CLERK   1200.00   0.00   122   50   1987-09-15   SH_CLERK   1200.00   0.00   122   50   1987-09-15   SH_CLERK   1200.00   0.00   122   50   1987-09-16   SH_CLERK   1200.0	
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   1000.00   0.20   149   80   177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   1400.00   0.20   149   80   178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   1000.00   0.15   149   0   0   0.15   149   0   0   0.15   149   0   0   0.15   149   0   0   0.15   149   0   0   0.15   149   80   0   0.15   149   0   0   0.15   149   0   0   0.15   149   0   0   0.15   149   0   0   0.15   149   0   0   0.00   0.10   149   80   0   0.00   0.00   120   50   0.00   0.00   120   50   0.00   0.00   120   50   0.00   0.00   120   50   0.00   0.00   120   50   0.00   0.00   0.00   120   50   0.00	11000.00   0.30   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP   800.00   0.20   149   80   140   80   80   140   80   140   80   140   80   140   80   140   80   140   80   140   80   140   80   140   80   140   80   140   80   80   80   80   80   80   80	175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP   8800.00   0.25   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   1490.00   0.20   149   80   178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   1700.00   0.00   120   50   181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   1700.00   0.00   120   50   182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   1700.00   0.00   120   50   183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   1700.00   0.00   121   50   184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   1700.00   0.00   121   50   185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   1700.00   0.00   121   50   186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   1800.00   0.00   121   50   187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   1800.00   0.00   122   50   188   Kelly   Chung   KCHUNG   650.505.2876   1987-09-13   SH_CLERK   1800.00   0.00   122   50   189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   1900.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-15   SH_CLERK   1900.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   1900.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-17   SH_CLERK   1900.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-17   SH_CLERK   1900.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-17   SH_CLERK   1900.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-17   SH_CLERK   1900.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-17	176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP
178   Kimberely   Grant   Grant	8600.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP   01/000.00   0.15   149   0   0   01/000.00   0.10   149   80   01/000.00   0.00   120   50   000.00   0.00   120   50   000.00   0.00   120   50   000.00   0.00   120   50   000.00   0.00   120   50   000.00   0.00   120   50   000.00   0.00   120   50   000.00   0.00   120   50   000.00   0.00   120   50   000.00   0.00   120   50   000.00   0.00   120   50   000.00   0.00   120   50   000.00   0.00   121   50   000.00   0.00   0.00   121   50   000.00   0	
179   Charles	178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP
180   Winston   17aylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   1200.00   0.00   120   50   181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   1200.00   0.00   120   50   182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   1200.00   0.00   120   50   183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   1200.00   0.00   120   50   184   Nandita   Sarchand   NSARCHAN   650.507.9879   1987-09-08   SH_CLERK   1200.00   0.00   121   50   185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   1200.00   0.00   121   50   186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   1200.00   0.00   121   50   187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   1200.00   0.00   121   50   188   Kelly   Chung   KCHUNG   650.509.4876   1987-09-13   SH_CLERK   1200.00   0.00   122   50   189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   1200.00   0.00   122   50   190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   1200.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   1200.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   1200.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   1200.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-17   SH_CLERK   1200.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-17   SH_CLERK   1200.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   1200.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   1200.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   1200.00   1200.00   1200.00   1200.00   1200.00   1200.00   1200.00   1200.00   1200.00   1200.00   1200.00   1200.00   1200.00	
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK   500.00   0.00   120   50   181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   100.00   0.00   120   50   182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   1500.00   0.00   120   50   183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   1200.00   0.00   121   50   184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   1200.00   0.00   121   50   185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   1400.00   0.00   121   50   186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   1400.00   0.00   121   50   187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   1800.00   0.00   121   50   188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   1800.00   0.00   122   50   189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   1800.00   0.00   122   50   190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   1900.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   1950.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-17   SH_CLERK   1950.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   1987-09-17   SH_CLERK   1987-09-18   SH_CLERK   1987-09-18   SH_CLERK   1987-09-18   SH_CLERK   1987-09-18   SH_CLERK   1987-09-18   SH_CLERK   1987-09-17   SH_CLERK   1987-09-17   SH_CLERK   1987-09-17   SH_CLERK   1987-09-18   SH_CLERK   198	179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   6200.00   0.10   149   80
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   100.00   0.00   120   50   120   1	
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK   100.00   0.00   120   50   182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   1500.00   0.00   120   50   183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   1200.00   0.00   120   50   184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   1200.00   0.00   121   50   185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   1400.00   0.00   121   50   186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   1400.00   0.00   121   50   187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   1400.00   0.00   121   50   188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   1400.00   0.00   122   50   189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   1400.00   0.00   122   50   190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   1400.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   1400.00   0.00   122   50   192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   1400.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   1400.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   1400.00   0.00   123   50   1400.00   0.00   123   50   1400.00   0.00   123   50   1400.00   0.00   123   50   1400.00   0.00   123   50   1400.00   0.00   123   50   1400.00   0.00   123   50   1400.00	3200.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   500.00   0.00   120   50   183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   1800.00   0.00   120   50   184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   1200.00   0.00   121   50   185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   1400.00   0.00   121   50   186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   1400.00   0.00   121   50   187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   1400.00   0.00   121   50   188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   1400.00   0.00   122   50   189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   1400.00   0.00   122   50   189   Timothy   Gates   TGATES   650.505.3876   1987-09-16   SH_CLERK   1400.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   1400.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   1400.00   0.00   123   50   192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   1400.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK	181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   1800.00   0.00   120   50   184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   1200.00   0.00   121   50   185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   1400.00   0.00   121   50   186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   1400.00   0.00   121   50   187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   1800.00   0.00   122   50   189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   1800.00   0.00   122   50   190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   1900.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   1900.00   0.00   122   50   192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   1900.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK	
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK   1800.00   0.00   120   50   184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   1200.00   0.00   121   50   185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   1400.00   0.00   121   50   186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   1800.00   0.00   121   50   188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   1800.00   0.00   122   50   189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   1800.00   0.00   122   50   190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   1900.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   1900.00   0.00   122   50   192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   1900.00   0.00   123   50	
184   Nandita	
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   1200.00   0.00   121   50   185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   1400.00   0.00   121   50   186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   1400.00   0.00   121   50   187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   1400.00   0.00   121   50   188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   1400.00   0.00   122   50   189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   1400.00   0.00   122   50   190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   1400.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   1400.00   0.00   122   50   192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   1400.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   1400.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   1400.00   0.00   123   50   1400.00	2800.00   0.00   120   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK   100.00   0.00   121   50   186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   1400.00   0.00   121   50   187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   1600.00   0.00   121   50   188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   1800.00   0.00   122   50   189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   1800.00   0.00   122   50   1900.00   0.00   122   50   1900.00   0.00   122   50   1987-09-15   SH_CLERK   1800.00   0.00   122   50   1987-09-16   SH_CLERK   1800.00   0.00   122   50   1987-09-16   SH_CLERK   1800.00   0.00   122   50   1987-09-17   SH_CLERK   1800.00   0.00   122   50   1987-09-17   SH_CLERK   1800.00   0.00   123   50   1987-09-17   SH_CLERK   1800.00   0.00   123   50   1987-09-18   SH_CLERK   1800.00   0.00   123   50   1800.00   0.00   123   50   1800.00   0.00   123   50   1800.00   0.00   123   50   1800.00   0.00   123   50   1800.00   0.00	184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK
100.00   0.00   121   50     186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK   1840.00   0.00   121   50     187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   1800.00   0.00   121   50     188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   1800.00   0.00   122   50     189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   1800.00   0.00   122   50     190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   1900.00   0.00   122   50     191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   1950.00   0.00   122   50     192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   1900.00   0.00   123   50     193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   1987-09-18   SH_CLER	
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK           3400.00   0.00   121   50           187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK           3000.00   0.00   121   50           188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK           3800.00   0.00   122   50           189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK           3600.00   0.00   122   50           190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK           2900.00   0.00   122   50           191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK           2500.00   0.00   122   50           192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK           4000.00   0.00   123   50           193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK	
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50   188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   3800.00   0.00   122   50   189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   3600.00   0.00   122   50   190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   3900.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   3900.00   0.00   122   50   192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   3900.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK	
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK   800.00   0.00   122   50	3400.00   0.00   121   50
188   Kelly         Chung         KCHUNG         650.505.1876         1987-09-13   SH_CLERK           3800.00         0.00         122         50           189   Jennifer   Dilly         JDILLY   650.505.2876           1987-09-14   SH_CLERK           3600.00         0.00         122         50           190   Timothy   Gates   TGATES   650.505.3876           1987-09-15   SH_CLERK           2900.00         0.00         122         50           191   Randall   Perkins   RPERKINS   650.505.4876           1987-09-16   SH_CLERK           2500.00         0.00         122         50           192   Sarah   Bell   SBELL   650.501.1876           1987-09-17   SH_CLERK           4000.00         0.00         123         50           193   Britney   Everett   BEVERETT   650.501.2876           1987-09-18   SH_CLERK	187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   1800.00   0.00   122   50   190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   1900.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   1950.00   0.00   122   50   192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   1900.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   1987-09	188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   1900.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   19500.00   0.00   122   50   192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   1900.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK   1987-09-18	3800.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50   191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   2500.00   0.00   122   50   192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK	$\cdot$
1900.00   0.00   122   50	
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   1900.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK	
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   1900.00   0.00   123   50   193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK	
193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK	192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK
· · · · · · · · · · · · · · · · · · ·	193   Britney   Everett   BEVERETT   650.501.2876   1987-09-18   SH_CLERK
194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK   3200.00   0.00   123   50	194   Samuel   McCain   SMCCAIN   650.501.3876   1987-09-19   SH_CLERK



			VJONES   50		1987-09-20   SH_CLERK	1
196	Alana	Walsh		650.507.9811	1987-09-21   SH_CLERK	
197	Kevin	Feeney		650.507.9822	1987-09-22   SH_CLERK	
198	Donald	OConnell		EL   650.507.983	3   1987-09-23   SH_CLE	RK
199	Douglas	Grant		650.507.9844	1987-09-24   SH_CLER	<
200	Jennifer	Whalen		515.123.4444	1987-09-25   AD_ASST	.
201 13000.00	Michael 0.00	Hartstein   100	MHARTST 	E   515.123.5555	1987-09-26   MK_MAN	I
-	Pat   201		•	3.123.6666	1987-09-27   MK_REP   6	000.00
			SMAVRIS 40		1987-09-28   HR_REP	
			HBAER 		1987-09-29   PR_REP	1
			SHIGGINS   110		1987-09-30   AC_MGR	
-	William 0.00	-	•		1987-10-01   AC_ACCOU	NT

#### Code:

**SELECT DISTINCT salary** 

FROM employees a

WHERE 3 >= (SELECT COUNT(DISTINCT salary)

FROM employees b

WHERE b.salary <= a.salary)</pre>

ORDER BY a.salary DESC;

**22.** Write a query to get nth max salaries of employees.

### Sample table: employees

EMPLOYEE_ID   FIRST_NAME	LAST_NAME   EMAIL	PHONE_NUMBER   HIRE_DATE
JOB_ID   SALARY   COMMI	ISSION_PCT   MANAGER_ID	DEPARTMENT_ID
100   Steven   King	SKING   515.123.45	67   1987-06-17   AD_PRES
24000.00   0.00	0   90	



101   Neena   Kochhar   NKOCHHAR   515.123.4568   1987-06-18   AD_VP   17000.00   0.00   100   90
102   Lex   De Haan   LDEHAAN   515.123.4569   1987-06-19   AD_VP   17000.00   0.00   100   90
103   Alexander   Hunold   AHUNOLD   590.423.4567   1987-06-20   IT_PROG   9000.00   0.00   102   60
104   Bruce   Ernst   BERNST   590.423.4568   1987-06-21   IT_PROG   6000.00   0.00   103   60
105   David   Austin   DAUSTIN   590.423.4569   1987-06-22   IT_PROG   4800.00   0.00   103   60
106   Valli   Pataballa   VPATABAL   590.423.4560   1987-06-23   IT_PROG   4800.00   0.00   103   60
107   Diana   Lorentz   DLORENTZ   590.423.5567   1987-06-24   IT_PROG   4200.00   0.00   103   60
108   Nancy   Greenberg   NGREENBE   515.124.4569   1987-06-25   FI_MGR   12000.00   0.00   101   100
109   Daniel   Faviet   DFAVIET   515.124.4169   1987-06-26   FI_ACCOUNT   9000.00   0.00   108   100
110   John   Chen   JCHEN   515.124.4269   1987-06-27   FI_ACCOUNT   8200.00   0.00   108   100
111   Ismael   Sciarra   ISCIARRA   515.124.4369   1987-06-28   FI_ACCOUNT   7700.00   0.00   108   100
112   Jose Manuel   Urman   JMURMAN   515.124.4469   1987-06-29   FI_ACCOUNT   7800.00   0.00   108   100
113   Luis   Popp   LPOPP   515.124.4567   1987-06-30   FI_ACCOUNT   6900.00   0.00   108   100
114   Den   Raphaely   DRAPHEAL   515.127.4561   1987-07-01   PU_MAN   11000.00   0.00   100   30
115   Alexander   Khoo   AKHOO   515.127.4562   1987-07-02   PU_CLERK   3100.00   0.00   114   30
116   Shelli   Baida   SBAIDA   515.127.4563   1987-07-03   PU_CLERK   2900.00   0.00   114   30
117   Sigal   Tobias   STOBIAS   515.127.4564   1987-07-04   PU_CLERK   2800.00   0.00   114   30
118   Guy   Himuro   GHIMURO   515.127.4565   1987-07-05   PU_CLERK   2600.00   0.00   114   30
119   Karen   Colmenares   KCOLMENA   515.127.4566   1987-07-06   PU_CLERK   2500.00   0.00   114   30
120   Matthew   Weiss   MWEISS   650.123.1234   1987-07-07   ST_MAN   8000.00   0.00   100   50
121   Adam   Fripp   AFRIPP   650.123.2234   1987-07-08   ST_MAN   8200.00   0.00   100   50
122   Payam   Kaufling   PKAUFLIN   650.123.3234   1987-07-09   ST_MAN   7900.00   0.00   100   50
123   Shanta   Vollman   SVOLLMAN   650.123.4234   1987-07-10   ST_MAN   6500.00   0.00   100   50



124   Kevin
125   Julia   Nayer   JNAYER   650.124.1214   1987-07-12   ST_CLERK   3200.00   0.00   120   50     126   Irene   Mikkilineni   IMIKKILI   650.124.1224   1987-07-13   ST_CLERK   2700.00   0.00   120   50     120   50     120   50     120   50     120   50     120   50     120   50     120   50     120   50     120   50     120   50     128   Steven   Markle   SMARKLE   650.124.1434   1987-07-15   ST_CLERK   2200.00   0.00   120   50     129   Laura   Bissot   LBISSOT   650.124.5234   1987-07-16   ST_CLERK   3300.00   0.00   121   50     130   Mozhe   Atkinson   MATKINSO   650.124.6234   1987-07-17   ST_CLERK   2800.00   0.00   121   50     131   James   Marlow   JAMRLOW   650.124.7234   1987-07-18   ST_CLERK   2500.00   0.00   121   50     132   TJ   Olson   TJOLSON   650.124.8234   1987-07-19   ST_CLERK   2100.00   0.00   121   50     133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50     134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2200.00   0.00   122   50     135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
126   Irene
127   James
128   Steven
129   Laura
129   Laura
130   Mozhe
131   James
132   TJ
132   TJ
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50     134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50     135   Ki
133   Jason   Mallin   JMALLIN   650.127.1934   1987-07-20   ST_CLERK   3300.00   0.00   122   50       134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50       135   Ki
134   Michael   Rogers   MROGERS   650.127.1834   1987-07-21   ST_CLERK   2900.00   0.00   122   50     135   Ki
2900.00   0.00   122   50
135   Ki   Gee   KGEE   650.127.1734   1987-07-22   ST_CLERK   2400.00   0.00   122   50
135   K    Gee     KGLL   030.127.1734   1367-07-22   31_CLLKK   2400.00   0.00   122   50
126   Uppel
136   Hazei   Philitanker   HPHILTAN   630.127.1634   1987-07-23   S1_CLERK
137   Renske   Ladwig   RLADWIG   650.121.1234   1987-07-24   ST_CLERK   3600.00   0.00   123   50
138   Stephen   Stiles   SSTILES   650.121.2034   1987-07-25   ST_CLERK   3200.00   0.00   123   50
139   John   Seo   JSEO   650.121.2019   1987-07-26   ST_CLERK   2700.00   0.00   123   50
140   Joshua   Patel   JPATEL   650.121.1834   1987-07-27   ST_CLERK   2500.00   0.00   123   50
141   Trenna   Rajs   TRAJS   650.121.8009   1987-07-28   ST_CLERK   3500.00   0.00   124   50
142   Curtis   Davies   CDAVIES   650.121.2994   1987-07-29   ST_CLERK   3100.00   0.00   124   50
143   Randall   Matos   RMATOS   650.121.2874   1987-07-30   ST_CLERK   2600.00   0.00   124   50
144   Peter   Vargas   PVARGAS   650.121.2004   1987-07-31   ST_CLERK   2500.00   0.00   124   50
145   John   Russell   JRUSSEL   011.44.1344.429268   1987-08-01   SA_MAN   14000.00   0.40   100   80
146   Karen   Partners   KPARTNER   011.44.1344.467268   1987-08-02   SA_MAN   13500.00   0.30   100   80



147   Alberto   Errazuriz   AERRAZUR   011.44.1344.429278   1987-08-03   SA_MAN   12000.00   0.30   100   80
148   Gerald   Cambrault   GCAMBRAU   011.44.1344.619268   1987-08-04   SA_MAN   11000.00   0.30   100   80
149   Eleni   Zlotkey   EZLOTKEY   011.44.1344.429018   1987-08-05   SA_MAN
10500.00   0.20   100   80
150   Peter   Tucker   PTUCKER   011.44.1344.129268   1987-08-06   SA_REP   10000.00   0.30   145   80
151   David   Bernstein   DBERNSTE   011.44.1344.345268   1987-08-07   SA_REP
9500.00   0.25   145   80
152   Peter   Hall   PHALL   011.44.1344.478968   1987-08-08   SA_REP   9000.00   0.25   145   80
153   Christopher   Olsen   COLSEN   011.44.1344.498718   1987-08-09   SA_REP
8000.00   0.20   145   80
154   Nanette   Cambrault   NCAMBRAU   011.44.1344.987668   1987-08-10   SA_REP   7500.00   0.20   145   80
155   Oliver   Tuvault   OTUVAULT   011.44.1344.486508   1987-08-11   SA_REP
7000.00   0.15   145   80     156   Janette   King   JKING   011.44.1345.429268   1987-08-12   SA_REP
10000.00   0.35   146   80
157   Patrick   Sully   PSULLY   011.44.1345.929268   1987-08-13   SA_REP
9500.00   0.35   146   80
9000.00   0.35   146   80
159   Lindsey   Smith   LSMITH   011.44.1345.729268   1987-08-15   SA_REP   8000.00   0.30   146   80
160   Louise   Doran   LDORAN   011.44.1345.629268   1987-08-16   SA_REP   7500.00   0.30   146   80
161   Sarath   Sewall   SSEWALL   011.44.1345.529268   1987-08-17   SA_REP   7000.00   0.25   146   80
162   Clara   Vishney   CVISHNEY   011.44.1346.129268   1987-08-18   SA_REP
10500.00   0.25   147   80
163   Danielle   Greene   DGREENE   011.44.1346.229268   1987-08-19   SA_REP   9500.00   0.15   147   80
164   Mattea   Marvins   MMARVINS   011.44.1346.329268   1987-08-20   SA_REP   7200.00   0.10   147   80
165   David   Lee   DLEE   011.44.1346.529268   1987-08-21   SA_REP   6800.00   0.10   147   80
166   Sundar   Ande   SANDE   011.44.1346.629268   1987-08-22   SA_REP   6400.00   0.10   147   80
167   Amit   Banda   ABANDA   011.44.1346.729268   1987-08-23   SA_REP   6200.00   0.10   147   80
168   Lisa   Ozer   LOZER   011.44.1343.929268   1987-08-24   SA_REP   11500.00   0.25   148   80
169   Harrison   Bloom   HBLOOM   011.44.1343.829268   1987-08-25   SA_REP   10000.00   0.20   148   80



170   Tayler   Fox   TFOX   011.44.1343.729268   1987-08-26   SA_REP   9600.00   0.20   148   80
9000.00   0.20   140   00
171   William   Smith   WSMITH   011.44.1343.629268   1987-08-27   SA_REP
7400.00   0.15   148   80
172   Elizabeth   Bates   EBATES   011.44.1343.529268   1987-08-28   SA_REP   7300.00   0.15   148   80
173   Sundita   Kumar   SKUMAR   011.44.1343.329268   1987-08-29   SA_REP
6100.00   0.10   148   80
174   Ellen   Abel   EABEL   011.44.1644.429267   1987-08-30   SA_REP   11000.00   0.30   149   80
175   Alyssa   Hutton   AHUTTON   011.44.1644.429266   1987-08-31   SA_REP
8800.00   0.25   149   80
176   Jonathon   Taylor   JTAYLOR   011.44.1644.429265   1987-09-01   SA_REP
8600.00   0.20   149   80
177   Jack   Livingston   JLIVINGS   011.44.1644.429264   1987-09-02   SA_REP   8400.00   0.20   149   80
178   Kimberely   Grant   KGRANT   011.44.1644.429263   1987-09-03   SA_REP
7000.00   0.15   149   0
179   Charles   Johnson   CJOHNSON   011.44.1644.429262   1987-09-04   SA_REP   6200.00   0.10   149   80
180   Winston   Taylor   WTAYLOR   650.507.9876   1987-09-05   SH_CLERK
3200.00   0.00   120   50
181   Jean   Fleaur   JFLEAUR   650.507.9877   1987-09-06   SH_CLERK
3100.00   0.00   120   50
182   Martha   Sullivan   MSULLIVA   650.507.9878   1987-09-07   SH_CLERK   2500.00   0.00   120   50
183   Girard   Geoni   GGEONI   650.507.9879   1987-09-08   SH_CLERK
2800.00   0.00   120   50
184   Nandita   Sarchand   NSARCHAN   650.509.1876   1987-09-09   SH_CLERK   4200.00   0.00   121   50
185   Alexis   Bull   ABULL   650.509.2876   1987-09-10   SH_CLERK
4100.00   0.00   121   50
186   Julia   Dellinger   JDELLING   650.509.3876   1987-09-11   SH_CLERK
3400.00   0.00   121   50
187   Anthony   Cabrio   ACABRIO   650.509.4876   1987-09-12   SH_CLERK   3000.00   0.00   121   50
188   Kelly   Chung   KCHUNG   650.505.1876   1987-09-13   SH_CLERK
3800.00   0.00   122   50
189   Jennifer   Dilly   JDILLY   650.505.2876   1987-09-14   SH_CLERK   3600.00   0.00   122   50
190   Timothy   Gates   TGATES   650.505.3876   1987-09-15   SH_CLERK   2900.00   0.00   122   50
191   Randall   Perkins   RPERKINS   650.505.4876   1987-09-16   SH_CLERK   2500.00   0.00   122   50
192   Sarah   Bell   SBELL   650.501.1876   1987-09-17   SH_CLERK   4000.00   0.00   123   50



193   Britney   Everett   BEVERETT   650.501.2876   193	987-09-18   SH_CLERK
194   Samuel   McCain   SMCCAIN   650.501.3876   3200.00   0.00   123   50	1987-09-19   SH_CLERK
195   Vance   Jones   VJONES   650.501.4876   19 2800.00   0.00   123   50	87-09-20   SH_CLERK
196   Alana   Walsh   AWALSH   650.507.9811   193100.00   0.00   124   50	987-09-21   SH_CLERK
197   Kevin   Feeney   KFEENEY   650.507.9822   193000.00   0.00   124   50	987-09-22   SH_CLERK
198   Donald   OConnell   DOCONNEL   650.507.9833   2600.00   0.00   124   50	1987-09-23   SH_CLERK
199   Douglas   Grant   DGRANT   650.507.9844   1 2600.00   0.00   124   50	987-09-24   SH_CLERK
200   Jennifer   Whalen   JWHALEN   515.123.4444   14400.00   0.00   101   10	1987-09-25   AD_ASST
201   Michael   Hartstein   MHARTSTE   515.123.5555   13000.00   0.00   100   20	1987-09-26   MK_MAN
202   Pat   Fay   PFAY   603.123.6666   1987- 0.00   201   20	09-27   MK_REP   6000.00
203   Susan   Mavris   SMAVRIS   515.123.7777   1   6500.00   0.00   101   40	987-09-28   HR_REP
204   Hermann   Baer   HBAER   515.123.8888   1   10000.00   0.00   101   70	987-09-29   PR_REP
205   Shelley   Higgins   SHIGGINS   515.123.8080   1   12000.00   0.00   101   110	987-09-30   AC_MGR
206   William   Gietz   WGIETZ   515.123.8181   198   8300.00   0.00   205   110	87-10-01   AC_ACCOUNT

### Code:

```
FROM employees emp1

WHERE (1) = (

SELECT COUNT(DISTINCT(emp2.salary))

FROM employees emp2

WHERE emp2.salary > emp1.salary);
```

	Java Enterprise Edition	nudp Life, Transformed.
	121	
	121	