**1. From the following table, write a SQL query to find those employees who get a higher salary than the employee whose ID is 163. Return first name, last name.**

cdac=# select "first\_name", "last\_name" from employees where salary>(select salary from employees where employee\_id = 163);

first\_name | last\_name

------------+-----------

Steven | King

Neena | Kochhar

Lex | De Haan

Nancy | Greenberg

Den | Raphaely

John | Russell

Karen | Partners

Alberto | Errazuriz

Gerald | Cambrault

Eleni | Zlotkey

Peter | Tucker

Janette | King

Clara | Vishney

Lisa | Ozer

Harrison | Bloom

Tayler | Fox

Ellen | Abel

Michael | Hartstein

Hermann | Baer

Shelley | Higgins

(20 rows)

**2. From the following table, write a SQL query to find those employees whose designation is the same as the employee whose ID is 169. Return first name, last name, department ID and job ID.**

cdac=# select "first\_name","last\_name","department\_id","job\_id" from employees where job\_id = (select job\_id from employees where employee\_id = 169);

first\_name | last\_name | department\_id | job\_id

-------------+------------+---------------+--------

Peter | Tucker | 80 | SA\_REP

David | Bernstein | 80 | SA\_REP

Peter | Hall | 80 | SA\_REP

Christopher | Olsen | 80 | SA\_REP

Nanette | Cambrault | 80 | SA\_REP

Oliver | Tuvault | 80 | SA\_REP

Janette | King | 80 | SA\_REP

Patrick | Sully | 80 | SA\_REP

Allan | McEwen | 80 | SA\_REP

Lindsey | Smith | 80 | SA\_REP

Louise | Doran | 80 | SA\_REP

Sarath | Sewall | 80 | SA\_REP

Clara | Vishney | 80 | SA\_REP

Danielle | Greene | 80 | SA\_REP

Mattea | Marvins | 80 | SA\_REP

David | Lee | 80 | SA\_REP

Sundar | Ande | 80 | SA\_REP

Amit | Banda | 80 | SA\_REP

Lisa | Ozer | 80 | SA\_REP

Harrison | Bloom | 80 | SA\_REP

Tayler | Fox | 80 | SA\_REP

William | Smith | 80 | SA\_REP

Elizabeth | Bates | 80 | SA\_REP

Sundita | Kumar | 80 | SA\_REP

Ellen | Abel | 80 | SA\_REP

Alyssa | Hutton | 80 | SA\_REP

Jonathon | Taylor | 80 | SA\_REP

Jack | Livingston | 80 | SA\_REP

Kimberely | Grant | 0 | SA\_REP

Charles | Johnson | 80 | SA\_REP

(30 rows)

cdac=# select "first\_name","last\_name","department\_id" from employees where salary in (select min(salary) from employees group by department\_id);

first\_name | last\_name | department\_id

------------+------------+---------------

Neena | Kochhar | 90

Lex | De Haan | 90

Bruce | Ernst | 60

Diana | Lorentz | 60

Luis | Popp | 100

Karen | Colmenares | 30

Shanta | Vollman | 50

James | Marlow | 50

TJ | Olson | 50

Joshua | Patel | 50

Peter | Vargas | 50

Peter | Tucker | 80

Oliver | Tuvault | 80

Janette | King | 80

Sarath | Sewall | 80

Harrison | Bloom | 80

Sundita | Kumar | 80

Kimberely | Grant | 0

Martha | Sullivan | 50

Nandita | Sarchand | 50

Randall | Perkins | 50

Jennifer | Whalen | 10

Pat | Fay | 20

Susan | Mavris | 40

Hermann | Baer | 70

William | Gietz | 110

(26 rows)

**3. From the following table, write a SQL query to find those employees whose salary matches the smallest salary of any of the departments. Return first name, last name and department ID.**

cdac=# select "first\_name","last\_name","salary","department\_id" from employees where salary in (select min(salary) from employees group by department\_id);

first\_name | last\_name | salary | department\_id

------------+------------+----------+---------------

Neena | Kochhar | 17000.00 | 90

Lex | De Haan | 17000.00 | 90

Bruce | Ernst | 6000.00 | 60

Diana | Lorentz | 4200.00 | 60

Luis | Popp | 6900.00 | 100

Karen | Colmenares | 2500.00 | 30

Shanta | Vollman | 6500.00 | 50

James | Marlow | 2500.00 | 50

TJ | Olson | 2100.00 | 50

Joshua | Patel | 2500.00 | 50

Peter | Vargas | 2500.00 | 50

Peter | Tucker | 10000.00 | 80

Oliver | Tuvault | 7000.00 | 80

Janette | King | 10000.00 | 80

Sarath | Sewall | 7000.00 | 80

Harrison | Bloom | 10000.00 | 80

Sundita | Kumar | 6100.00 | 80

Kimberely | Grant | 7000.00 | 0

Martha | Sullivan | 2500.00 | 50

Nandita | Sarchand | 4200.00 | 50

Randall | Perkins | 2500.00 | 50

Jennifer | Whalen | 4400.00 | 10

Pat | Fay | 6000.00 | 20

Susan | Mavris | 6500.00 | 40

Hermann | Baer | 10000.00 | 70

William | Gietz | 8300.00 | 110

(26 rows)

cdac=# select min(salary) from employees group by department\_id;

min

----------

6100.00

17000.00

4200.00

4400.00

7000.00

6500.00

6000.00

2100.00

2500.00

8300.00

10000.00

6900.00

(12 rows)

^

cdac=# select "first\_name","last\_name","employee\_id" from employees where salary in (select avg(salary) from employees);

first\_name | last\_name | employee\_id

------------+-----------+-------------

(0 rows)

4. From the following table, write a SQL query to find those employees who earn more than the average salary. Return employee ID, first name, last name.

cdac=# select "first\_name","last\_name","employee\_id" from employees where salary > (select avg(salary) from employees);

first\_name | last\_name | employee\_id

-------------+------------+-------------

Steven | King | 100

Neena | Kochhar | 101

Lex | De Haan | 102

Alexander | Hunold | 103

Nancy | Greenberg | 108

Daniel | Faviet | 109

John | Chen | 110

Ismael | Sciarra | 111

Jose Manuel | Urman | 112

Luis | Popp | 113

Den | Raphaely | 114

Matthew | Weiss | 120

Adam | Fripp | 121

Payam | Kaufling | 122

Shanta | Vollman | 123

John | Russell | 145

Karen | Partners | 146

Alberto | Errazuriz | 147

Gerald | Cambrault | 148

Eleni | Zlotkey | 149

Peter | Tucker | 150

David | Bernstein | 151

Peter | Hall | 152

Christopher | Olsen | 153

Nanette | Cambrault | 154

Oliver | Tuvault | 155

Janette | King | 156

Patrick | Sully | 157

Allan | McEwen | 158

Lindsey | Smith | 159

Louise | Doran | 160

Sarath | Sewall | 161

Clara | Vishney | 162

Danielle | Greene | 163

Mattea | Marvins | 164

David | Lee | 165

Lisa | Ozer | 168

Harrison | Bloom | 169

Tayler | Fox | 170

William | Smith | 171

Elizabeth | Bates | 172

Ellen | Abel | 174

Alyssa | Hutton | 175

Jonathon | Taylor | 176

Jack | Livingston | 177

Kimberely | Grant | 178

Michael | Hartstein | 201

Susan | Mavris | 203

Hermann | Baer | 204

Shelley | Higgins | 205

William | Gietz | 206

(51 r

ows)

**5.** From the following table, write a SQL query to find those employees who report that manager whose first name is ‘Payam’. Return first name, last name, employee ID and salary.

cdac(# select employee\_id from employees where first\_name='Payam');

employee\_id | first\_name | last\_name | salary

-------------+------------+------------+---------

133 | Jason | Mallin | 3300.00

134 | Michael | Rogers | 2900.00

135 | Ki | Gee | 2400.00

136 | Hazel | Philtanker | 2200.00

188 | Kelly | Chung | 3800.00

189 | Jennifer | Dilly | 3600.00

190 | Timothy | Gates | 2900.00

191 | Randall | Perkins | 2500.00

(8 rows)

cdac=# select \* from 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

50 | Shipping | 121 | 1500

60 | IT | 103 | 1400

70 | Public Relations | 204 | 2700

80 | Sales | 145 | 2500

90 | Executive | 100 | 1700

100 | Finance | 108 | 1700

110 | Accounting | 205 | 1700

120 | Treasury | 0 | 1700

130 | Corporate Tax | 0 | 1700

140 | Control And Credit | 0 | 1700

150 | Shareholder Services | 0 | 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 | 0 | 1700

250 | Retail Sales | 0 | 1700

260 | Recruiting | 0 | 1700

270 | Payroll | 0 | 1700

(27 rows)

**6.** From the following tables, write a SQL query to find all those employees who work in the Finance department. Return department ID, name (first), job ID and department name.

cdac=# select e.department\_id,e.first\_name,e.job\_id,d.department\_name from employees e , departments d where e.department\_id = d.department\_id and d.department\_name = 'Finance' ;

department\_id | first\_name | job\_id | department\_name

---------------+-------------+------------+-----------------

100 | Nancy | FI\_MGR | Finance

100 | Daniel | FI\_ACCOUNT | Finance

100 | John | FI\_ACCOUNT | Finance

100 | Ismael | FI\_ACCOUNT | Finance

100 | Jose Manuel | FI\_ACCOUNT | Finance

100 | Luis | FI\_ACCOUNT | Finance

(6 rows)

**7.** From the following table, write a SQL query to find the employee whose salary is 3000 and reporting person’s ID is 121. Return all fields.

cdac=# select "employee\_id","first\_name","last\_name","email","phone\_number","hire\_date","job\_id","salary","commission\_pct","manager\_id","department\_id" from employees where (salary = 3000 and manager\_id = 121) ;

employee\_id | first\_name | last\_name | email | phone\_number | hire\_date | job\_id | salary | commission\_pct | manager\_id | department\_id

-------------+------------+-----------+---------+--------------+------------+----------+---------+----------------+------------+---------------

187 | Anthony | Cabrio | ACABRIO | 650.509.4876 | 1987-09-12 | SH\_CLERK | 3000.00 | 0.00 | 121 | 50

(1 row)

**8.** From the following table, write a SQL query to find those employees whose ID matches any of the number 134, 159 and 183. Return all the fields.   ^

cdac=# select \* from employees where employee\_id in (134,159,183) ;

employee\_id | first\_name | last\_name | email | phone\_number | hire\_date | job\_id | salary | commission\_pct | manager\_id | department\_id

-------------+------------+-----------+---------+--------------------+------------+----------+---------+----------------+------------+---------------

134 | Michael | Rogers | MROGERS | 650.127.1834 | 1987-07-21 | ST\_CLERK | 2900.00 | 0.00 | 122 | 50

159 | Lindsey | Smith | LSMITH | 011.44.1345.729268 | 1987-08-15 | SA\_REP | 8000.00 | 0.30 | 146 | 80

183 | Girard | Geoni | GGEONI | 650.507.9879 | 1987-09-08 | SH\_CLERK | 2800.00 | 0.00 | 120 | 50

(3 rows)

**9.** From the following table, write a SQL query to find those employees whose salary is in the range 1000, and 3000 (Begin and end values have included.). Return all the fields.

cdac=# select \* from employees where salary between (select 1000) and 3000 ;

employee\_id | first\_name | last\_name | email | phone\_number | hire\_date | job\_id | salary | commission\_pct | manager\_id | department\_id

-------------+------------+-------------+----------+--------------+------------+----------+---------+----------------+------------+---------------

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

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

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

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

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

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

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

187 | Anthony | Cabrio | ACABRIO | 650.509.4876 | 1987-09-12 | SH\_CLERK | 3000.00 | 0.00 | 121 | 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

195 | Vance | Jones | VJONES | 650.501.4876 | 1987-09-20 | SH\_CLERK | 2800.00 | 0.00 | 123 | 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

(26 rows)

**10.** From the following table and write a SQL query to find those employees whose salary is in the range of smallest salary, and 2500. Return all the fields.

cdac=# select \* from employees where salary between (select min(salary) from employees) and 2500 ;

employee\_id | first\_name | last\_name | email | phone\_number | hire\_date | job\_id | salary | commission\_pct | manager\_id | department\_id

-------------+------------+------------+----------+--------------+------------+----------+---------+----------------+------------+---------------

119 | Karen | Colmenares | KCOLMENA | 515.127.4566 | 1987-07-06 | PU\_CLERK | 2500.00 | 0.00 | 114 | 30

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

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

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

140 | Joshua | Patel | JPATEL | 650.121.1834 | 1987-07-27 | ST\_CLERK | 2500.00 | 0.00 | 123 | 50

144 | Peter | Vargas | PVARGAS | 650.121.2004 | 1987-07-31 | ST\_CLERK | 2500.00 | 0.00 | 124 | 50

182 | Martha | Sullivan | MSULLIVA | 650.507.9878 | 1987-09-07 | SH\_CLERK | 2500.00 | 0.00 | 120 | 50

191 | Randall | Perkins | RPERKINS | 650.505.4876 | 1987-09-16 | SH\_CLERK | 2500.00 | 0.00 | 122 | 50

(11 rows)

**11. From the following tables, write a SQL query to find those employees who do not work in those departments where manager ids are in the range 100, 200 (Begin and end values are included.) Return all the fields of the employees**.

SELECT \* FROM employees WHERE department\_id NOT IN (SELECT department\_id FROM departments WHERE manager\_id BETWEEN 100 AND 200);

**12. From the following table, write a SQL query to find those employees who get second-highest salary. Return all the fields of the employees.**

SELECT \* FROM employees WHERE employee\_id IN (SELECT employee\_id FROM employees WHERE salary = (SELECT MAX(salary) FROM employees WHERE salary < (SELECT MAX(salary) FROM employees)));

**13. From the following tables, write a SQL query to find those employees who work in the same department where ‘Clara’ works. Exclude all those records where first name is ‘Clara’. Return first name, last name and hire date.**

select first\_name, last\_name, hire\_date from employees where department\_id = ( select department\_id from employees where first\_name = 'Clara') and first\_name <> 'Clara';

**14. From the following tables, write a SQL query to find those employees who work in a department where the employee’s first name contains a letter 'T'. Return employee ID, first name and last name.**

Select employee\_id, first\_name, last\_name from employees where department\_id in ( select department\_id from employees where first\_name like '%T%' );

**16. From the following table, write a SQL query to find those employees whose department located at 'Toronto'. Return first name, last name, employee ID, job ID.**

select first\_name, last\_name, employee\_id, job\_id from employees where department\_id = (select department\_id from departments where location\_id = (select location\_id from locations where city ='Toronto'));

**17. From the following table, write a SQL query to find those employees whose salary is lower than any salary of those employees whose job title is ‘MK\_MAN’. Return employee ID, first name, last name, job ID.**

select employee\_id,first\_name,last\_name,job\_id from employees where salary < any ( select salary from employees where job\_id = 'MK\_MAN' );

**20. From the following table, write a SQL query to find those employees whose salary is more than average salary of any department. Return employee ID, first name, last name, job ID.**

select employee\_id, first\_name, last\_name, job\_id from employees where salary > all ( select avg(salary) from employees group by department\_id );

**21. From the following table, write a SQL query to find any existence of those employees whose salary exceeds 3700. Return first name, last name and department ID.**

select first\_name, last\_name, department\_id from employees where exists (select \* from employees where salary >3700 );

**24. Write a query to display the employee id, name ( first name and last name ), salary and the SalaryStatus column with a title HIGH and LOW respectively for those employees whose salary is more than and less than the average salary of all employees.**

select employee\_id, first\_name, last\_name, salary, case when salary >= (select avg(salary) from employees) then 'HIGH' else 'LOW' end as SalaryStatus from employees;