

## Database Lab 01 Tasks

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Task 01: Display all employees whose salary is between 3000 and 7000.

The screenshot shows the Oracle SQL Developer interface. The 'Worksheet' tab is active, displaying the following SQL query:

```
select * from employees
where SALARY BETWEEN 3000 AND 7000;
```

Below the query, the 'Query Result' tab is open, showing the results of the query. The results are as follows:

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL                | PHONE_NUMBER | HIRE_DATE | JOB_ID     | SALARY | MANAGER_ID | DEPARTMENT_ID |
|-------------|------------|-----------|----------------------|--------------|-----------|------------|--------|------------|---------------|
| 1           | Bruce      | Ernst     | BERNST@example.com   | 590.423.4568 | 21-MAY-07 | IT_PROG    | 6000   | 103        | 60            |
| 2           | David      | Austin    | DAUSTIN@example.com  | 590.423.4569 | 25-JUN-05 | IT_PROG    | 4800   | 103        | 60            |
| 3           | Valli      | Pataballa | VPATABAL@example.com | 590.423.4560 | 05-FEB-06 | IT_PROG    | 4800   | 103        | 60            |
| 4           | Diana      | Lorentz   | DLORENTZ@example.com | 590.423.5567 | 07-FEB-07 | IT_PROG    | 4200   | 103        | 60            |
| 5           | Luis       | Popp      | LPOPP@example.com    | 515.124.4569 | 07-DEC-07 | FI_ACCOUNT | 6900   | 108        | 100           |
| 6           | Alexander  | Khoo      | AKHOO@example.com    | 515.127.4562 | 18-MAY-05 | PU_CLERK   | 3100   | 114        | 30            |

Task 02: Display all employees whose first\_name starts with 'A'.

The screenshot shows the Oracle SQL Developer interface. The 'Worksheet' tab is active, displaying the following SQL query:

```
select * from employees
where first_name like 'A%';
```

Below the query, the 'Query Result' tab is open, showing the results of the query. The results are as follows:

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL               | PHONE_NUMBER | HIRE_DATE | JOB_ID   | SALARY | MANAGER_ID | DEPARTMENT_ID |
|-------------|------------|-----------|---------------------|--------------|-----------|----------|--------|------------|---------------|
| 103         | Alexander  | Hunold    | AHUNOLD@example.com | 590.423.4567 | 03-JAN-06 | IT_PROG  | 9000   | 102        | 60            |
| 115         | Alexander  | Khoo      | AKHOO@example.com   | 515.127.4562 | 18-MAY-05 | PU_CLERK | 3100   | 114        | 30            |

Task 03: Display all employees whose department\_id is 50 OR 80.

The screenshot shows the Oracle SQL Developer interface. The 'Worksheet' tab is active, displaying the following SQL query:

```
select * from departments
where department_id IN (50,80);
```

Below the query, the 'Query Result' tab is open, showing the results of the query. The results are as follows:

| DEPARTMENT_ID | DEPARTMENT_NAME | MANAGER_ID | LOCATION_ID |
|---------------|-----------------|------------|-------------|
| 50            | Shipping        | 121        | 1500        |
| 80            | Sales           | 145        | 2500        |

Task 04: Display all employees whose salary is greater than 5000 AND department\_id is 60.

```
select * from employees  
where salary > 5000 And department_id = 60;
```

| Query Result                               |            |           |        |                     |              |           |         |            |               |    |
|--|------------|-----------|--------|---------------------|--------------|-----------|---------|------------|---------------|----|
| SQL   All Rows Fetched: 2 in 0.006 seconds |            |           |        |                     |              |           |         |            |               |    |
| EMPLOYEE_ID                                | FIRST_NAME | LAST_NAME | EMAIL  | PHONE_NUMBER        | HIRE_DATE    | JOB_ID    | SALARY  | MANAGER_ID | DEPARTMENT_ID |    |
| 1  | 103        | Alexander | Hunold | AHUNOLD@example.com | 590.423.4567 | 03-JAN-06 | IT_PROG | 9000       | 102           | 60 |
| 2  | 104        | Bruce     | Ernst  | BERNST@example.com  | 590.423.4568 | 21-MAY-07 | IT_PROG | 6000       | 103           | 60 |

Task 05: Display all employees whose first\_name does NOT start with 'S'.

```
select * from employees  
where first_name not like 'S%';
```

| Query Result                                |            |             |            |                      |              |           |            |            |               |     |
|---|------------|-------------|------------|----------------------|--------------|-----------|------------|------------|---------------|-----|
| SQL   All Rows Fetched: 17 in 0.008 seconds |            |             |            |                      |              |           |            |            |               |     |
| EMPLOYEE_ID                                 | FIRST_NAME | LAST_NAME   | EMAIL      | PHONE_NUMBER         | HIRE_DATE    | JOB_ID    | SALARY     | MANAGER_ID | DEPARTMENT_ID |     |
| 2   | 102        | Lex         | De Haan    | LDEHAAN@example.com  | 515.123.4569 | 05-FEB-26 | IT_PROG    | 9000       | 101           | 30  |
| 3   | 103        | Alexander   | Hunold     | AHUNOLD@example.com  | 590.423.4567 | 03-JAN-06 | IT_PROG    | 9000       | 102           | 60  |
| 4   | 104        | Bruce       | Ernst      | BERNST@example.com   | 590.423.4568 | 21-MAY-07 | IT_PROG    | 6000       | 103           | 60  |
| 5   | 105        | David       | Austin     | DAUSTIN@example.com  | 590.423.4569 | 25-JUN-05 | IT_PROG    | 4800       | 103           | 60  |
| 6   | 106        | Valli       | Pataballa  | VPATABAL@example.com | 590.423.4560 | 05-FEB-06 | IT_PROG    | 4800       | 103           | 60  |
| 7   | 107        | Diana       | Lorentz    | DLORENTZ@example.com | 590.423.5567 | 07-FEB-07 | IT_PROG    | 4200       | 103           | 60  |
| 8   | 108        | Nancy       | Greenberg  | NGREENBE@example.com | 515.124.4569 | 17-AUG-02 | FI_MGR     | 12000      | 101           | 100 |
| 9   | 109        | Daniel      | Faviet     | DFAVIET@example.com  | 515.124.4169 | 16-AUG-02 | FI_ACCOUNT | 9000       | 108           | 100 |
| 10  | 110        | John        | Chen       | JCHEN@example.com    | 515.124.4269 | 28-SEP-05 | FI_ACCOUNT | 8200       | 108           | 100 |
| 11  | 111        | Ismael      | Sciarra    | ISCIARRA@example.com | 515.124.4369 | 30-SEP-05 | FI_ACCOUNT | 7700       | 108           | 100 |
| 12  | 112        | Jose Manuel | Urman      | JMURMAN@example.com  | 515.124.4469 | 07-MAR-06 | FI_ACCOUNT | 7800       | 108           | 100 |
| 13  | 113        | Luis        | Popp       | LPOPP@example.com    | 515.124.4569 | 07-DEC-07 | FI_ACCOUNT | 6900       | 108           | 100 |
| 14  | 114        | Den         | Raphaely   | DRAPHAEL@example.com | 515.127.4561 | 07-DEC-07 | PU_MAN     | 11000      | 100           | 30  |
| 15  | 115        | Alexander   | Khoo       | AKHOO@example.com    | 515.127.4562 | 18-MAY-05 | PU_CLERK   | 3100       | 114           | 30  |
| 16  | 118        | Guy         | Himuro     | GHIMURO@example.com  | 515.127.4565 | 24-DEC-05 | PU_CLERK   | 2600       | 114           | 30  |
| 17  | 119        | Karen       | Colmenares | KCOLMENA@example.com | 515.127.4566 | 24-DEC-05 | PU_CLERK   | 2500       | 114           | 30  |

Task 06: Display all employees whose hire\_date is between 01-JAN-2004 and 31-DEC-2008.

```
SELECT *  
FROM employees  
WHERE hire_date BETWEEN TO_DATE('01-JAN-2004', 'DD-MON-YYYY')  
AND TO_DATE('31-DEC-2008', 'DD-MON-YYYY');
```

| Query Result                                |            |             |            |                      |              |           |            |            |               |     |
|---|------------|-------------|------------|----------------------|--------------|-----------|------------|------------|---------------|-----|
| SQL   All Rows Fetched: 15 in 0.011 seconds |            |             |            |                      |              |           |            |            |               |     |
| EMPLOYEE_ID                                 | FIRST_NAME | LAST_NAME   | EMAIL      | PHONE_NUMBER         | HIRE_DATE    | JOB_ID    | SALARY     | MANAGER_ID | DEPARTMENT_ID |     |
| 2   | 104        | Bruce       | Ernst      | BERNST@example.com   | 590.423.4568 | 21-MAY-07 | IT_PROG    | 6000       | 103           | 60  |
| 3   | 105        | David       | Austin     | DAUSTIN@example.com  | 590.423.4569 | 25-JUN-05 | IT_PROG    | 4800       | 103           | 60  |
| 4   | 106        | Valli       | Pataballa  | VPATABAL@example.com | 590.423.4560 | 05-FEB-06 | IT_PROG    | 4800       | 103           | 60  |
| 5   | 107        | Diana       | Lorentz    | DLORENTZ@example.com | 590.423.5567 | 07-FEB-07 | IT_PROG    | 4200       | 103           | 60  |
| 6   | 110        | John        | Chen       | JCHEN@example.com    | 515.124.4269 | 28-SEP-05 | FI_ACCOUNT | 8200       | 108           | 100 |
| 7   | 111        | Ismael      | Sciarra    | ISCIARRA@example.com | 515.124.4369 | 30-SEP-05 | FI_ACCOUNT | 7700       | 108           | 100 |
| 8   | 112        | Jose Manuel | Urman      | JMURMAN@example.com  | 515.124.4469 | 07-MAR-06 | FI_ACCOUNT | 7800       | 108           | 100 |
| 9   | 113        | Luis        | Popp       | LPOPP@example.com    | 515.124.4569 | 07-DEC-07 | FI_ACCOUNT | 6900       | 108           | 100 |
| 10  | 114        | Den         | Raphaely   | DRAPHAEL@example.com | 515.127.4561 | 07-DEC-07 | PU_MAN     | 11000      | 100           | 30  |
| 11  | 115        | Alexander   | Khoo       | AKHOO@example.com    | 515.127.4562 | 18-MAY-05 | PU_CLERK   | 3100       | 114           | 30  |
| 12  | 116        | Shelli      | Baida      | SBAIDA@example.com   | 515.127.4563 | 24-DEC-05 | PU_CLERK   | 2900       | 114           | 30  |
| 13  | 117        | Sigal       | Tobias     | STOBIAS@example.com  | 515.127.4564 | 24-DEC-05 | PU_CLERK   | 2800       | 114           | 30  |
| 14  | 118        | Guy         | Himuro     | GHIMURO@example.com  | 515.127.4565 | 24-DEC-05 | PU_CLERK   | 2600       | 114           | 30  |
| 15  | 119        | Karen       | Colmenares | KCOLMENA@example.com | 515.127.4566 | 24-DEC-05 | PU_CLERK   | 2500       | 114           | 30  |

Task 07: Display all employees whose job\_id is 'IT\_PROG' OR salary is greater than 8000.

```
select * from employees
where job_id = 'IT_PROG' or salary > 8000;
```

Query Result | All Rows Fetched: 12 in 0.004 seconds

| EMPLOYEE_ID | FIRST_NAME    | LAST_NAME | EMAIL                | PHONE_NUMBER | HIRE_DATE | JOB_ID     | SALARY | MANAGER_ID | DEPARTMENT_ID |
|-------------|---------------|-----------|----------------------|--------------|-----------|------------|--------|------------|---------------|
| 1           | 100 Steven    | King      | SKING@example.com    | 515.123.4567 | 05-FEB-26 | AD_PRES    | 24000  | (null)     | 10            |
| 2           | 101 Neena     | Kochhar   | NKOCHHAR@example.com | 515.123.4568 | 05-FEB-26 | AD_VP      | 17000  | 100        | 10            |
| 3           | 102 Lex       | De Haan   | LDEHAAN@example.com  | 515.123.4569 | 05-FEB-26 | IT_PROG    | 9000   | 101        | 30            |
| 4           | 103 Alexander | Hunold    | AHUNOLD@example.com  | 590.423.4567 | 03-JAN-06 | IT_PROG    | 9000   | 102        | 60            |
| 5           | 104 Bruce     | Ernst     | BERNST@example.com   | 590.423.4568 | 21-MAY-07 | IT_PROG    | 6000   | 103        | 60            |
| 6           | 105 David     | Austin    | DAUSTIN@example.com  | 590.423.4569 | 25-JUN-05 | IT_PROG    | 4800   | 103        | 60            |
| 7           | 106 Valli     | Pataballa | VPATABAL@example.com | 590.423.4560 | 05-FEB-06 | IT_PROG    | 4800   | 103        | 60            |
| 8           | 107 Diana     | Lorentz   | DLORENTZ@example.com | 590.423.5567 | 07-FEB-07 | IT_PROG    | 4200   | 103        | 60            |
| 9           | 108 Nancy     | Greenberg | NGREENBE@example.com | 515.124.4569 | 17-AUG-02 | FI_MGR     | 12000  | 101        | 100           |
| 10          | 109 Daniel    | Faviet    | DFAVIET@example.com  | 515.124.4169 | 16-AUG-02 | FI_ACCOUNT | 9000   | 108        | 100           |
| 11          | 110 John      | Chen      | JCHEN@example.com    | 515.124.4269 | 28-SEP-05 | FI_ACCOUNT | 8200   | 108        | 100           |
| 12          | 114 Den       | Raphaely  | DRAPHAEL@example.com | 515.127.4561 | 07-DEC-07 | PU_MAN     | 11000  | 100        | 30            |

Task 08: Display all employees whose department\_id is NOT between 30 and 90.

```
select * from employees
where department_id not between 30 And 90;
```

Query Result | All Rows Fetched: 8 in 0.006 seconds

| EMPLOYEE_ID | FIRST_NAME      | LAST_NAME | EMAIL                | PHONE_NUMBER | HIRE_DATE | JOB_ID     | SALARY | MANAGER_ID | DEPARTMENT_ID |
|-------------|-----------------|-----------|----------------------|--------------|-----------|------------|--------|------------|---------------|
| 1           | 100 Steven      | King      | SKING@example.com    | 515.123.4567 | 05-FEB-26 | AD_PRES    | 24000  | (null)     | 10            |
| 2           | 101 Neena       | Kochhar   | NKOCHHAR@example.com | 515.123.4568 | 05-FEB-26 | AD_VP      | 17000  | 100        | 10            |
| 3           | 108 Nancy       | Greenberg | NGREENBE@example.com | 515.124.4569 | 17-AUG-02 | FI_MGR     | 12000  | 101        | 100           |
| 4           | 109 Daniel      | Faviet    | DFAVIET@example.com  | 515.124.4169 | 16-AUG-02 | FI_ACCOUNT | 9000   | 108        | 100           |
| 5           | 110 John        | Chen      | JCHEN@example.com    | 515.124.4269 | 28-SEP-05 | FI_ACCOUNT | 8200   | 108        | 100           |
| 6           | 111 Ismael      | Sciarra   | ISCIARRA@example.com | 515.124.4369 | 30-SEP-05 | FI_ACCOUNT | 7700   | 108        | 100           |
| 7           | 112 Jose Manuel | Urman     | JMURMAN@example.com  | 515.124.4469 | 07-MAR-06 | FI_ACCOUNT | 7800   | 108        | 100           |
| 8           | 113 Luis        | Popp      | LPOPP@example.com    | 515.124.4569 | 07-DEC-07 | FI_ACCOUNT | 6900   | 108        | 100           |

Task 09: Display all employees whose first\_name contains 'an'.

```
SELECT * FROM employees
where first_name LIKE '%an%';
```

Query Result | All Rows Fetched: 6 in 0.006 seconds

| EMPLOYEE_ID | FIRST_NAME      | LAST_NAME | EMAIL                | PHONE_NUMBER | HIRE_DATE | JOB_ID     | SALARY | MANAGER_ID | DEPARTMENT_ID |
|-------------|-----------------|-----------|----------------------|--------------|-----------|------------|--------|------------|---------------|
| 1           | 103 Alexander   | Hunold    | AHUNOLD@example.com  | 590.423.4567 | 03-JAN-06 | IT_PROG    | 9000   | 102        | 60            |
| 2           | 107 Diana       | Lorentz   | DLORENTZ@example.com | 590.423.5567 | 07-FEB-07 | IT_PROG    | 4200   | 103        | 60            |
| 3           | 108 Nancy       | Greenberg | NGREENBE@example.com | 515.124.4569 | 17-AUG-02 | FI_MGR     | 12000  | 101        | 100           |
| 4           | 109 Daniel      | Faviet    | DFAVIET@example.com  | 515.124.4169 | 16-AUG-02 | FI_ACCOUNT | 9000   | 108        | 100           |
| 5           | 112 Jose Manuel | Urman     | JMURMAN@example.com  | 515.124.4469 | 07-MAR-06 | FI_ACCOUNT | 7800   | 108        | 100           |
| 6           | 115 Alexander   | Khoo      | AKHOO@example.com    | 515.127.4562 | 18-MAY-05 | PU_CLERK   | 3100   | 114        | 30            |

Task 10: Display all employees whose salary is less than 4000 AND first\_name ends with 'n'.

```
select * from employees
where salary < 4000 And first_name like '%n'
```

Query Result x

All Rows Fetched: 1 in 0.006 seconds

|   | EMPLOYEE_ID | FIRST_NAME | LAST_NAME  | EMAIL                | PHONE_NUMBER | HIRE_DATE | JOB_ID   | SALARY | MANAGER_ID | DEPARTMENT_ID |
|---|-------------|------------|------------|----------------------|--------------|-----------|----------|--------|------------|---------------|
| 1 | 119         | Karen      | Colmenares | KCOLMENA@example.com | 515.127.4566 | 24-DEC-05 | PU_CLERK | 2500   | 114        | 30            |