

Practice-01

1. The HR department wants a query to display the ename, job, hiredate, and empno for each employee, with empno appearing first. Provide an alias "STARTDATE" for the HIREDATE column.

The screenshot shows the SQL Developer interface with a query window titled "SQL Commands". The query entered is:

```
SELECT EMPNO, ENAME, JOB, HIREDATE AS STARTDATE
FROM EMP
```

The query is executed, and the results are displayed in a table with the following columns: EMPNO, ENAME, JOB, and STARTDATE. The results show 10 rows of employee data.

EMPNO	ENAME	JOB	STARTDATE
7369	SMITH	CLERK	17-DEC-80
7499	ALLEN	SALESMAN	20-FEB-81
7521	WARD	SALESMAN	22-FEB-81
7566	JONES	MANAGER	02-APR-81
7654	MARTIN	SALESMAN	28-SEP-81
7698	BLAKE	MANAGER	01-MAY-81
7782	CLARK	MANAGER	09-JUN-81
7788	SCOTT	ANALYST	19-APR-87
7839	KING	PRESIDENT	17-NOV-81
7844	TURNER	SALESMAN	08-SEP-81

More than 10 rows available. Increase rows selector to view more rows.

10 rows returned in 0.00 seconds

2. The HR department needs a query to display all unique job from the EMPLOYEES table.

The screenshot shows the SQL Developer interface with a query window titled "SQL Commands". The query entered is:

```
SELECT DISTINCT JOB
FROM EMP
```

The query is executed, and the results are displayed in a table with the following columns: JOB. The results show 5 rows of unique job titles.

JOB
CLERK
SALESMAN
PRESIDENT
MANAGER
ANALYST

5 rows returned in 0.02 seconds

3. The HR department wants more descriptive column headings for its report on employees. Name the column headings Emp # for empno, Employee for ename, Job for JOB, and Hire Date for HIREDATE, respectively. Then run your query again.

The screenshot shows a web browser window with the title "SQL Commands". The address bar shows the URL "127.0.0.1:8080/apex/f?p=4500:1003:168466039345900::NO::". The browser's toolbar includes icons for Google, Firefox, and other applications. The page content shows a SQL command window with the following text:

```
Autocommit Display 10 Save Run
SELECT EMPNO AS "Emp", ENAME AS "Employee", JOB AS "Job", HIREDATE AS "Hire Date"
FROM EMP
```

Below the command window, there is a section titled "Results" with tabs for "Results", "Explain", "Describe", "Saved SQL", and "History". The "Results" tab is selected, showing a table with the following data:

Emp	Employee	Job	Hire Date
7369	SMITH	CLERK	17-DEC-80
7499	ALLEN	SALESMAN	20-FEB-81
7521	WARD	SALESMAN	22-FEB-81
7566	JONES	MANAGER	02-APR-81
7654	MARTIN	SALESMAN	28-SEP-81
7698	BLAKE	MANAGER	01-MAY-81
7782	CLARK	MANAGER	09-JUN-81
7788	SCOTT	ANALYST	19-APR-87
7839	KING	PRESIDENT	17-NOV-81
7844	TURNER	SALESMAN	08-SEP-81

Below the table, it says "More than 10 rows available. Increase rows selector to view more rows." and "10 rows returned in 0.00 seconds". There is a "CSV Export" link.

The Windows taskbar at the bottom shows the time as 8:29 PM on 10/16/2022, and the weather as 87°F Haze.

4. The HR department has requested a report of all employees and their salary. Display the ename concatenated with the salary (separated by a comma and space) and name the column Employee and Title.

The screenshot shows the Oracle SQL Developer interface. The top pane displays the following SQL query:

```
SELECT ENAME || ', ' || SAL AS "Employee and Title"  
FROM EMP
```

The bottom pane shows the results of the query in a table format. The table has one column, "Employee And Title", and 10 rows of data. Below the table, it indicates "10 rows returned in 0.00 seconds" and provides a "CSV Export" link.

Employee And Title
SMITH, 800
ALLEN, 1600
WARD, 1250
JONES, 2975
MARTIN, 1250
BLAKE, 2850
CLARK, 2450
SCOTT, 3000
KING, 5000
TURNER, 1500

10 rows returned in 0.00 seconds [CSV Export](#)

5. To familiarize yourself with the data in the EMP table, create a query to display all the data from that table. Separate each column output by a comma. Name the column title THE_OUTPUT.

The screenshot shows the Oracle Database Express Edition SQL Commands window. The query entered is:

```
SELECT EMPNO || ',' || ENAME || ',' || JOB || ',' || MGR || ',' || HIREDATE || ',' || SAL || ',' || COMM || ',' || DEPTNO AS "THE_OUTPUT"
FROM EMP
```

The results are displayed in a table with the column header THE_OUTPUT. The data is as follows:

THE_OUTPUT
7369, SMITH, CLERK, 7902, 17-DEC-80, 800, , 20
7499, ALLEN, SALESMAN, 7698, 20-FEB-81, 1600, 300, 30
7521, WARD, SALESMAN, 7698, 22-FEB-81, 1250, 500, 30
7566, JONES, MANAGER, 7839, 02-APR-81, 2975, , 20
7654, MARTIN, SALESMAN, 7698, 28-SEP-81, 1250, 1400, 30
7698, BLAKE, MANAGER, 7839, 01-MAY-81, 2850, , 30
7782, CLARK, MANAGER, 7839, 09-JUN-81, 2450, , 10
7788, SCOTT, ANALYST, 7566, 19-APR-87, 3000, , 20
7839, KING, PRESIDENT, , 17-NOV-81, 5000, , 10
7844, TURNER, SALESMAN, 7698, 08-SEP-81, 1500, 0, 30

10 rows returned in 0.00 seconds [CSV Export](#)

6. List the deptno from emp uniquely.

The screenshot shows the Oracle Database Express Edition SQL Commands window. The query entered is:

```
SELECT DISTINCT DEPTNO
FROM EMP
```

The results are displayed in a table with the column header DEPTNO. The data is as follows:

DEPTNO
30
20
10

3 rows returned in 0.00 seconds [CSV Export](#)

7. Show the information of all employees like “SMITH go salary \$ 800”.

The screenshot shows the Oracle SQL Developer interface. The top pane contains the following SQL query:

```
SELECT ENAME || ' go salary $' || SAL
FROM EMP
```

The bottom pane displays the results of the query. The results are shown in a table with the following columns: ENAME||'GOSALARY\$'||SAL.

ENAME 'GOSALARY\$' SAL
SMITH go salary \$800
ALLEN go salary \$1600
WARD go salary \$1250
JONES go salary \$2975
MARTIN go salary \$1250
BLAKE go salary \$2850
CLARK go salary \$2450
SCOTT go salary \$3000
KING go salary \$5000
TURNER go salary \$1500

More than 10 rows available. Increase rows selector to view more rows.
10 rows returned in 0.00 seconds [CSV Export](#)

8. Check whether all the empno are indeed unique.

The screenshot shows the Oracle SQL Developer interface. The top pane contains the following SQL query:

```
SELECT DISTINCT EMPNO
FROM EMP
```

The bottom pane displays the results of the query. The results are shown in a table with the following columns: EMPNO.

EMPNO
7369
7499
7521
7566
7654
7698
7782
7788
7839
7844

More than 10 rows available. Increase rows selector to view more rows.
10 rows returned in 0.01 seconds [CSV Export](#)

9. List "Annual salary" for all employee use column aliasing.

The screenshot shows the SQL Developer interface with a query window titled "SQL Commands". The query entered is:

```
SELECT ENAME, SAL*12 AS "Annual Salary"
FROM EMP
```

The query is executed, and the results are displayed in a table with the following data:

ENAME	Annual Salary
SMITH	9600
ALLEN	19200
WARD	15000
JONES	35700
MARTIN	15000
BLAKE	34200
CLARK	29400
SCOTT	36000
KING	60000
TURNER	18000

Below the table, it states "More than 10 rows available. Increase rows selector to view more rows." and "10 rows returned in 0.00 seconds". A "CSV Export" link is also present.

10. List the information for all employee whose job is either MANAGER or ANALYST.

The screenshot shows the SQL Developer interface with a query window titled "SQL Commands". The query entered is:

```
SELECT*
FROM EMP
WHERE JOB = 'MANAGER' OR JOB = 'ANALYST'
```

The query is executed, and the results are displayed in a table with the following data:

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	02-APR-81	2975	-	20
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	-	30
7782	CLARK	MANAGER	7839	09-JUN-81	2450	-	10
7788	SCOTT	ANALYST	7566	19-APR-87	3000	-	20
7902	FORD	ANALYST	7566	03-DEC-81	3000	-	20

Below the table, it states "5 rows returned in 0.00 seconds". A "CSV Export" link is also present.

At the bottom of the window, it says "Application Express 2.1.0.00.39 Copyright © 1999, 2006, Oracle. All rights reserved."

11. List the department name whose department no is 20.

The screenshot shows the Oracle Database Express Edition web interface. The browser address bar displays the URL `127.0.0.1:8080/apex/f?p=4500:1003:168466039345900::NO::`. The page header includes the Oracle logo and the text "Database Express Edition". The user is logged in as "SCOTT". The navigation menu shows "Home > SQL > SQL Commands".

The SQL command area contains the following query:

```
SELECT*  
FROM EMP  
WHERE DEPTNO = '20'
```

The query is executed, and the results are displayed in a table. The table has 8 columns: EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, and DEPTNO. There are 5 rows of data.

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800	-	20
7566	JONES	MANAGER	7839	02-APR-81	2975	-	20
7788	SCOTT	ANALYST	7566	19-APR-87	3000	-	20
7876	ADAMS	CLERK	7788	23-MAY-87	1100	-	20
7902	FORD	ANALYST	7566	03-DEC-81	3000	-	20

Below the table, it states "5 rows returned in 0.00 seconds" and provides a link to "CSV Export". The footer of the interface shows "Application Express 2.1.0.00.39" and "Copyright © 1999, 2006, Oracle. All rights reserved.".

Practice-02

1. Create a query to display the name,salary,commision of employees earning more than \$2850.

The screenshot shows the Oracle Database Express Edition web interface. The browser address bar displays the URL: 127.0.0.1:8080/apex/f?p=4500:1003:168466039345900::NO:::SQL Commands. The interface includes a top navigation bar with 'Home', 'Logout', and 'Help' links. Below the navigation bar, the user is logged in as 'SCOTT'. The main area is titled 'SQL Commands' and contains a text input field with the following SQL query:

```
SELECT ENAME, SAL, COMM
FROM EMP
WHERE SAL > 2850
```

Below the query input field, there are tabs for 'Results', 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Results' tab is active, displaying a table with the following data:

ENAME	SAL	COMM
JONES	2975	-
SCOTT	3000	-
KING	5000	-
FORD	3000	-

Below the table, it states '4 rows returned in 0.00 seconds' and provides a 'CSV Export' link. The bottom of the interface shows the 'Application Express 2.1.0.00.39' version and copyright information. The Windows taskbar at the bottom indicates the system time as 11:05 PM on 10/16/2022.

2. Create a query to display the employee name, salary and department number for employee number 7566.

The screenshot shows the Oracle Database Express Edition interface. The user is SCOTT. The SQL command entered is:

```
SELECT ENAME, SAL, DEPTNO
FROM EMP
WHERE EMPNO = 7566
```

The results show one row:

ENAME	SAL	DEPTNO
JONES	2975	20

1 rows returned in 0.00 seconds. The interface also shows tabs for Results, Explain, Describe, Saved SQL, and History. The bottom status bar indicates the application is Express 2.1.0.0.39 and the language is en-us.

3. Display the name and salary for all employees whose salary is not in the range of \$1500 and \$2850

The screenshot shows the Oracle Database Express Edition interface. The user is SCOTT. The SQL command entered is:

```
SELECT ENAME, SAL
FROM EMP
WHERE SAL NOT BETWEEN 1500 AND 2850
```

The results show 10 rows:

ENAME	SAL
SMITH	800
WARD	1250
JONES	2975
MARTIN	1250
SCOTT	3000
KING	5000
ADAMS	1100
JAMES	950
FORD	3000
MILLER	1300

10 rows returned in 0.00 seconds. The interface also shows tabs for Results, Explain, Describe, Saved SQL, and History. The bottom status bar indicates the application is Express 2.1.0.0.39 and the language is en-us.

4. Display the employee name, job, and start date of employees hired between February 20, 1981, and May 1, 1981. Order the query in ascending order by start date.

The screenshot shows the Oracle Database Express Edition interface. The user is SCOTT. The SQL command entered is:

```
SELECT ENAME, JOB, HIREDATE
FROM EMP
WHERE HIREDATE BETWEEN '10-FEB-81' AND '01-MAY-81'
ORDER BY HIREDATE ASC
```

The results are displayed in a table with 4 rows:

ENAME	JOB	HIREDATE
ALLEN	SALESMAN	20-FEB-81
WARD	SALESMAN	22-FEB-81
JONES	MANAGER	02-APR-81
BLAKE	MANAGER	01-MAY-81

4 rows returned in 0.00 seconds. A CSV Export link is available.

5. Display the employee name and department number of all employees in departments 10 and 30 in alphabetical order by name.

The screenshot shows the Oracle Database Express Edition interface. The user is SCOTT. The SQL command entered is:

```
SELECT ENAME, DEPTNO
FROM EMP
WHERE DEPTNO = 10 OR DEPTNO = 30
ORDER BY ENAME ASC
```

The results are displayed in a table with 9 rows:

ENAME	DEPTNO
ALLEN	30
BLAKE	30
CLARK	10
JAMES	30
KING	10
MARTIN	30
MILLER	10
TURNER	30
WARD	30

9 rows returned in 0.00 seconds. A CSV Export link is available.

6. Display list the name and salary of employees who earn more than \$1500 and in department 10 or 30. Label the columns Employee and Monthly Salary, respectively.

The screenshot shows the SQL Developer interface with the following details:

- SQL Commands Window:** Contains the query: `SELECT ENAME, SAL, DEPTNO
FROM EMP
WHERE (DEPTNO = 10 OR DEPTNO = 30) AND SAL > 1500`
- Results Window:** Displays the results of the query in a table format.

ENAME	SAL	DEPTNO
ALLEN	1600	30
BLAKE	2850	30
CLARK	2450	10
KING	5000	10

4 rows returned in 0.00 seconds

Application Express 2.1.0.00.39
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7. Display the name and hire date of every employee who was hired in 1982.

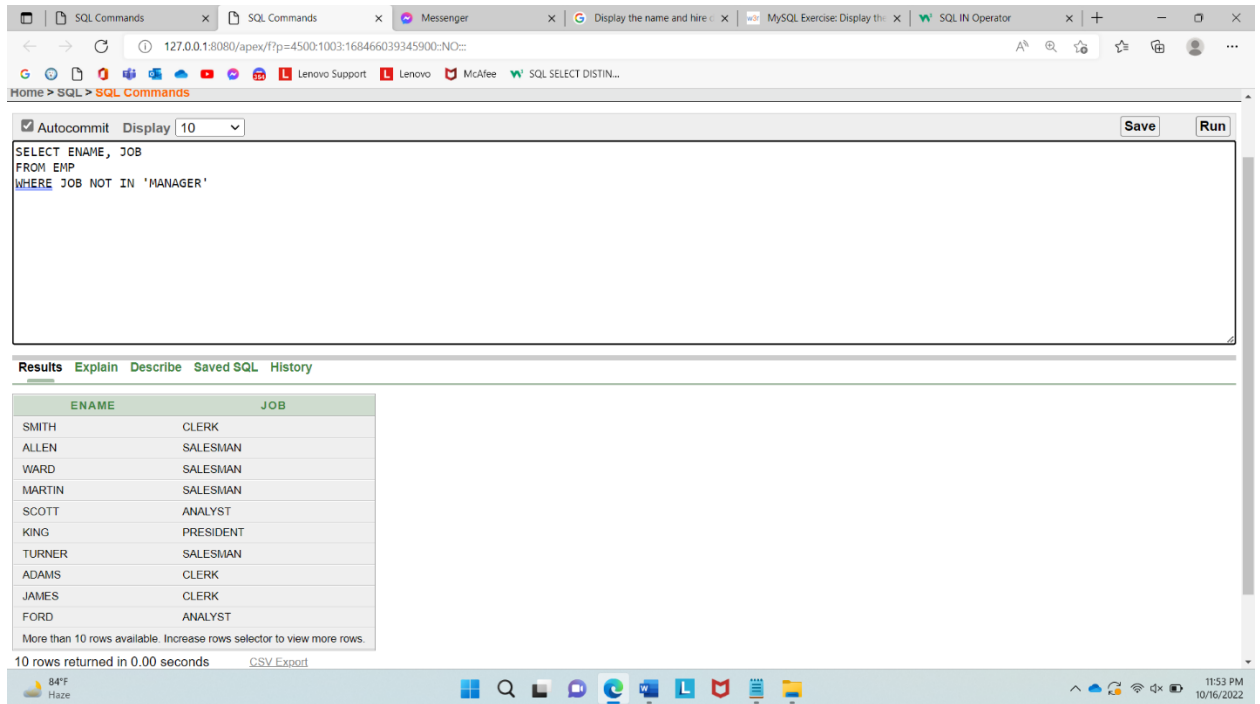
The screenshot shows the SQL Developer interface with the following details:

- SQL Commands Window:** Contains the query: `SELECT ENAME, HIREDATE
FROM EMP
WHERE HIREDATE LIKE '1982%'`
- Results Window:** Displays the results of the query.

no data found

Application Express 2.1.0.00.39
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8. Display the name and job title of all employees who do not have a manager.



The screenshot shows a web-based SQL interface. At the top, there are several browser tabs, including 'SQL Commands', 'Messenger', and 'MySQL Exercise: Display th...'. The address bar shows a URL starting with '127.0.0.1:8080/apex/'. Below the browser tabs, there is a navigation bar with 'Home > SQL > SQL Commands'. The main area has a text input field for SQL commands. The command entered is:

```
SELECT ENAME, JOB
FROM EMP
WHERE JOB NOT IN 'MANAGER'
```

 To the right of the input field are buttons for 'Autocommit', 'Display', '10', 'Save', and 'Run'. Below the input field, there is a section for 'Results' with tabs for 'Results', 'Explain', 'Describe', 'Saved SQL', and 'History'. The 'Results' tab is active, showing a table with two columns: 'ENAME' and 'JOB'. The table contains 10 rows of data. Below the table, it says 'More than 10 rows available. Increase rows selector to view more rows.' and '10 rows returned in 0.00 seconds'. There is also a 'CSV Export' link. The bottom of the screen shows a Windows taskbar with various icons and the system clock indicating 11:53 PM on 10/16/2022.

ENAME	JOB
SMITH	CLERK
ALLEN	SALESMAN
WARD	SALESMAN
MARTIN	SALESMAN
SCOTT	ANALYST
KING	PRESIDENT
TURNER	SALESMAN
ADAMS	CLERK
JAMES	CLERK
FORD	ANALYST

9. Display the name, salary, and commission for all employees who earn commissions. Sort data in descending order of salary and commissions.

The screenshot shows the Oracle Database Express Edition interface. The user is SCOTT. The SQL command entered is:

```
SELECT ENAME, SAL, COMM
FROM EMP
WHERE COMM NOT IN '0'
ORDER BY SAL, COMM DESC
```

The results are displayed in a table with 3 rows:

ENAME	SAL	COMM
MARTIN	1250	1400
WARD	1250	500
ALLEN	1600	300

3 rows returned in 0.00 seconds. A CSV Export link is available.

10. Display the names of all employees where the third letter of their name is an A.

The screenshot shows the Oracle Database Express Edition interface. The user is SCOTT. The SQL command entered is:

```
SELECT ENAME
FROM EMP
WHERE ENAME LIKE '__A%'
```

The results are displayed in a table with 3 rows:

ENAME
BLAKE
CLARK
ADAMS

3 rows returned in 0.00 seconds. A CSV Export link is available.

11. Display the name of all employees who have two Ls in their name and are in department 30 or their manager is 7782.

The screenshot shows a web browser window with multiple tabs. The active tab is titled "SQL Commands" and displays the URL "127.0.0.1:8080/apex/?p=4500:1003:168466039345900:NO:". The user is identified as "SCOTT". The breadcrumb navigation shows "Home > SQL > SQL Commands".

At the top of the command area, there is a checkbox for "Autocommit" which is checked, and a "Display" dropdown menu set to "10". To the right are "Save" and "Run" buttons.

The SQL command entered in the text area is:

```
SELECT ENAME
FROM EMP
WHERE ENAME LIKE '%L%L%'
AND (DEPTNO = 30 OR MGR = 7782)
```

Below the command area, there are tabs for "Results", "Explain", "Describe", "Saved SQL", and "History". The "Results" tab is selected, showing a table with one column, "ENAME", and two rows of data:

ENAME
ALLEN
MILLER

Below the table, it states "2 rows returned in 0.00 seconds" and provides a link for "CSV Export".

At the bottom of the application window, the text "Application Express 2.1.0.00.39" and "Copyright © 1999, 2006, Oracle. All rights reserved." are visible. The browser's taskbar at the very bottom shows the system clock as 12:13 AM on 10/17/2022, along with weather information (84°F, Haze) and various application icons.

12. Display the name, job, and salary for all employees whose job is Clerk or Analyst and their salary is not equal to \$1000, \$3000, or \$5000.

The screenshot shows the SQL Developer interface with a query window and a results grid. The query is:

```
SELECT *  
FROM EMP
```

The results grid displays the following data:

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800	-	20
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7566	JONES	MANAGER	7839	02-APR-81	2975	-	20
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7698	BLAKE	MANAGER	7839	01-MAY-81	2850	-	30
7782	CLARK	MANAGER	7839	09-JUN-81	2450	-	10
7788	SCOTT	ANALYST	7566	19-APR-87	3000	-	20
7839	KING	PRESIDENT	-	17-NOV-81	5000	-	10
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30

More than 10 rows available. Increase rows selector to view more rows.

10 rows returned in 0.00 seconds [CSV Export](#)

13. Display the name, salary, and commission for all employees whose commission amount is greater than their salary increased by 10%.

The screenshot shows the SQL Developer interface with a query window and a results grid. The query is:

```
SELECT ENAME, SAL, COMM  
FROM EMP  
WHERE COMM > (SAL*10)/100
```

The results grid displays the following data:

ENAME	SAL	COMM
ALLEN	1600	300
WARD	1250	500
MARTIN	1250	1400

3 rows returned in 0.00 seconds [CSV Export](#)