

EXERCISE-4

Writing Basic SQL SELECT Statements

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1. Identify the Errors

```
SELECT employee_id, last_name, sal*12 ANNUAL SALARY FROM employees;
```

Queries

Error:

```
sal*12 ANNUAL SALARY
```

Corrected Query:

```
SELECT employee_id, last_name, sal*12 AS "ANNUAL SALARY" FROM employees;
```

2. Show the structure of departments table. Select all the data from it.

The screenshot shows the Oracle APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop', 'Team Development', and 'Gallery'. The 'SQL Commands' section is active, showing a command editor with the text 'DESC DEPT;'. Below the editor, the 'Describe' tab is selected, displaying the structure of the 'DEPT' table. The table structure is shown in a table format with columns: Table, Column, Data Type, Length, Precision, Scale, Primary Key, Nullable, Default, and Comment.

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DEPT	ID	NUMBER	-	7	0	1	-	-	-
	NAME	VARCHAR2	25	-	-	-	✓	-	-

APEX App Builder SQL Workshop Team Development Gallery

SQL Commands Schema

Language SQL Rows 10 Clear Command Find Tables

1 SELECT * FROM DEPT;

Results Explain Describe Saved SQL History

ID	NAME
20	HR
40	Management
10	IT
30	Finance

4 rows returned in 0.03 seconds Download

3. Create a query to display the last name, job code, hire date, and employee number for each employee, with employee number appearing first.

SQL Commands Schema WKSP_DBMS05

Language SQL Rows 10 Clear Command Find Tables Save Run

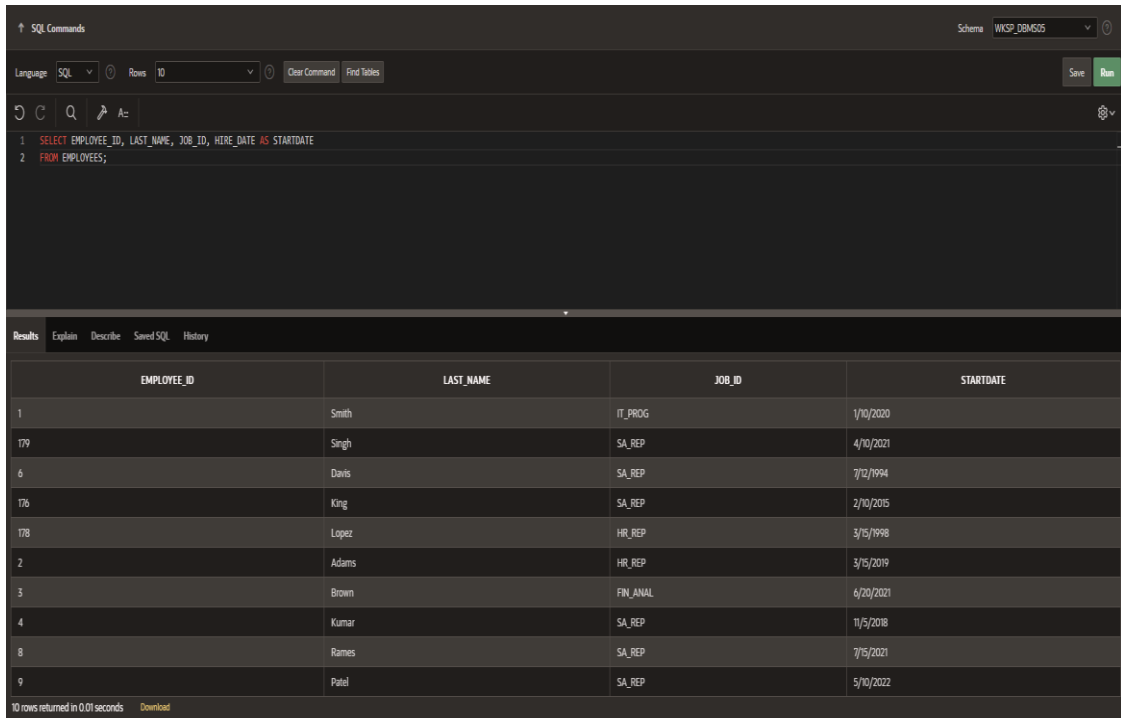
1 SELECT EMPLOYEE_ID, LAST_NAME, JOB_ID, HIRE_DATE
2 FROM EMPLOYEES;

Results Explain Describe Saved SQL History

EMPLOYEE_ID	LAST_NAME	JOB_ID	HIRE_DATE
1	Smith	IT_PROG	1/10/2020
179	Singh	SA_REP	4/10/2021
6	Davis	SA_REP	7/12/1994
176	King	SA_REP	2/10/2015
178	Lopez	HR_REP	3/15/1998
2	Adams	HR_REP	3/15/2019
3	Brown	FIN_ANAL	6/20/2021
4	Kumar	SA_REP	11/5/2018
8	Rames	SA_REP	7/15/2021
9	Patel	SA_REP	5/10/2022

10 rows returned in 0.00 seconds Download

4. Provide an alias STARTDATE for the hire date.



The screenshot shows the SQL Developer interface. The 'SQL Commands' window contains the following query:

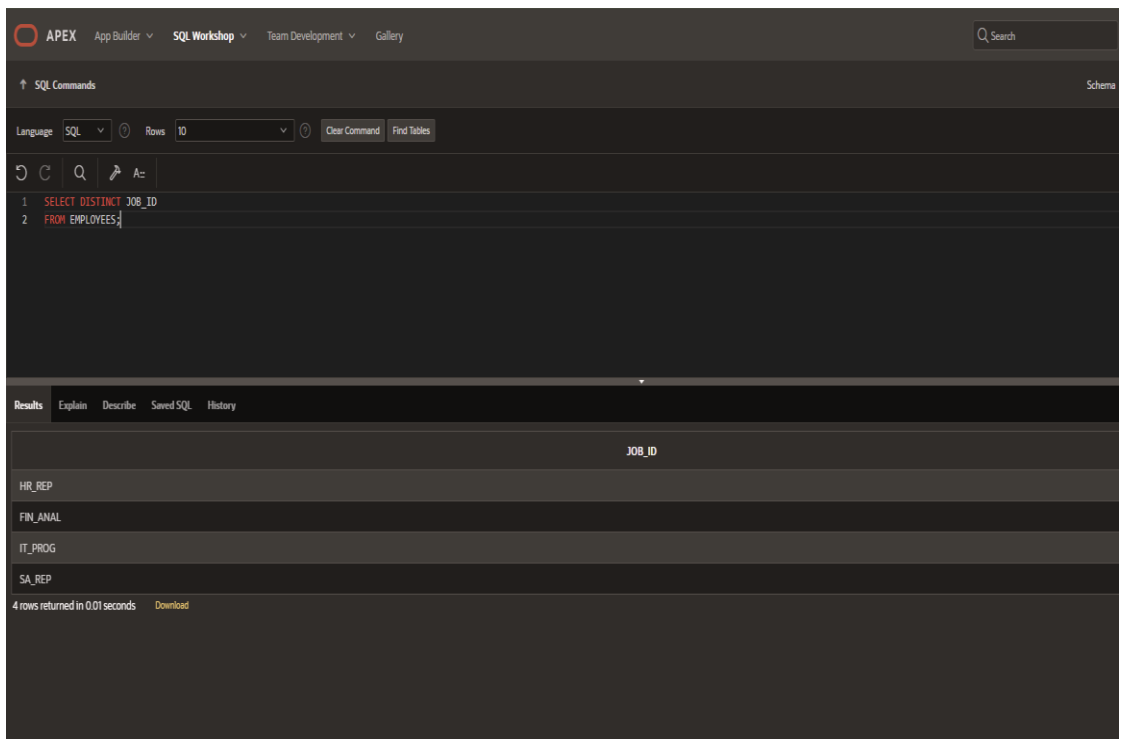
```
1 SELECT EMPLOYEE_ID, LAST_NAME, JOB_ID, HIRE_DATE AS STARTDATE
2 FROM EMPLOYEES;
```

The 'Results' window displays the following table:

EMPLOYEE_ID	LAST_NAME	JOB_ID	STARTDATE
1	Smith	IT_PROG	1/10/2020
179	Singh	SA_REP	4/10/2021
6	Davis	SA_REP	7/12/1994
176	King	SA_REP	2/10/2015
178	Lopez	HR_REP	3/15/1998
2	Adams	HR_REP	3/15/2019
3	Brown	FIN_ANAL	6/20/2021
4	Kumar	SA_REP	11/5/2018
8	Rames	SA_REP	7/15/2021
9	Patel	SA_REP	5/10/2022

10 rows returned in 0.01 seconds Download

5. Create a query to display unique job codes from the employee table.



The screenshot shows the APEX SQL Workshop interface. The 'SQL Commands' window contains the following query:

```
1 SELECT DISTINCT JOB_ID
2 FROM EMPLOYEES;
```

The 'Results' window displays the following table:

JOB_ID
HR_REP
FIN_ANAL
IT_PROG
SA_REP

4 rows returned in 0.01 seconds Download

6. Display the last name concatenated with the job ID , separated by a comma and space, and name the column EMPLOYEE and TITLE.

The screenshot shows the APEX SQL Workshop interface. The SQL command area contains the following query:

```
1 SELECT LAST_NAME || ', ' || JOB_ID AS "EMPLOYEE and TITLE"
2 FROM EMPLOYEES;
```

The Results tab is selected, displaying the output of the query. The column header is "EMPLOYEE and TITLE". The results are as follows:

EMPLOYEE and TITLE
Smith, IT_PROG
Singh, SA_REP
Davis, SA_REP
King, SA_REP
Lopez, HR_REP
Adams, HR_REP
Brown, FIN_ANAL
Kumar, SA_REP
Rames, SA_REP
Patel, SA_REP

10 rows returned in 0.00 seconds. Download

7. Create a query to display all the data from the employees table. Separate each column by a comma. Name the column THE_OUTPUT.

The screenshot shows the APEX SQL Workshop interface. The SQL command area contains the following query:

```
1 SELECT employee_id || ', ' || last_name || ', ' || job_id || ', ' || hire_date || ', ' || salary || ', ' || department_id AS "THE_OUTPUT"
2 FROM employees;
```

The Results tab is selected, displaying the output of the query. The column header is "THE_OUTPUT". The results are as follows:

THE_OUTPUT
1, Smith, IT_PROG, 1/10/2020, 5000, 10
179, Singh, SA_REP, 4/10/2021, 7000, 50
4, Davis, SA_REP, 7/12/1994, 7000, 20
176, King, SA_REP, 2/10/2015, 8000, 20
178, Lopez, HR_REP, 3/15/1998, 6000, 20
2, Adams, HR_REP, 3/15/2019, 4000, 20
3, Brown, FIN_ANAL, 4/20/2021, 4500, 30
4, Kumar, SA_REP, 11/5/2018, 15000, 40
8, Rames, SA_REP, 7/15/2021, 7000, 20
9, Patel, SA_REP, 5/10/2022, 9000, 20

10 rows returned in 0.01 seconds. Download