

DATABASE MANAGEMENT SYSTEM

CS23332

EXERCISE 4

WRITING BASIC SQL SELECT STATEMENTS

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

Language SQL Rows 10 Clear Command Find Tables

1 DESC DEPARTMENT;

Object Type	TABLE	Object	DEPARTMENT						
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DEPARTMENT	DEPT_ID	NUMBER	-	6	0	1	-	-	-
	DEPT_NAME	VARCHAR2	20	-	-	-	-	-	-
	MANAGER_ID	NUMBER	-	6	0	-	✓	-	-
	LOCATION_ID	NUMBER	-	4	0	-	✓	-	-

1 DESC DEPARTMENT;
2 SELECT * FROM DEPARTMENT;

Results Explain Describe Saved SQL History

DEPT_ID	DEPT_NAME	MANAGER_ID	LOCATION_ID
10	Development	1001	101
20	Human Resources	1003	102
30	Sales	1004	103
40	Finance	-	104

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.

The screenshot shows a SQL query being run in a database environment. The query is:

```
1 SELECT Employee_id,Last_name,Job_id,Hire_date from EMPLOYEES;
```

The results are displayed in a table with four columns: EMPLOYEE_ID, LAST_NAME, JOB_ID, and HIRE_DATE. The data is as follows:

EMPLOYEE_ID	LAST_NAME	JOB_ID	HIRE_DATE
1003	Johnson	HR01	7/1/2021
1004	Williams	SALES1	11/30/2018
1002	Smith	DEV02	3/22/2019
1001	Doe	DEV01	1/15/2020

4. Provide an alias STARTDATE for the hire date.

Language SQL Rows 10 Clear Command Find Tables Save Run

SELECT Employee_id, last_name, Job_id, Hire_date AS STARTDATE from EMPLOYEES;

Results Explain Describe Saved SQL History

EMPLOYEE_ID	LAST_NAME	JOB_ID	STARTDATE
1003	Johnson	HR01	7/1/2021
1004	Williams	SALES1	11/30/2018
1002	Smith	DEV02	3/22/2019
1001	Doe	DEV01	1/15/2020

4 rows returned in 0.01 seconds [Download](#)

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

The screenshot shows a SQL query interface with the following details:

- Toolbar:** Includes icons for back, forward, search, and edit.
- Query Editor:** Shows the SQL command: `1 SELECT DISTINCT JOB_ID from EMPLOYEES;`
- Results Tab:** Active tab, showing the output of the query.
- Output:** A table with one column labeled `JOB_ID`, containing four distinct values: `DEV02`, `HR01`, `SALES1`, and `DEV01`.
- Statistics:** At the bottom left, it says `4 rows returned in 0.00 seconds`. At the bottom right, there is a `Download` link.

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 a MySQL Workbench interface with a query editor window. The query is:`SELECT LAST_NAME || ',' || JOB_ID AS 'EMPLOYEE AND TITLE' FROM EMPLOYEES;`

The results are displayed in a table titled "EMPLOYEE AND TITLE". The data is:

EMPLOYEE AND TITLE
Jackson,HE01
Williams,SALE01
Smith,DEV02
Davis,DEV03

A note at the bottom says "4 rows returned in 0.002 seconds".

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 Oracle APEX SQL Workshop interface. The top navigation bar includes 'APEX', 'App Builder', 'SQL Workshop' (selected), and 'Team Development'. Below the bar, the 'SQL Commands' tab is active, with 'Schema' set to 'WKSP_JOWORKSAPCE'. The 'Language' dropdown is set to 'SQL'. The 'Rows' dropdown is set to '10'. There are buttons for 'Clear Command', 'Save', and 'Run'. A 'Find Tables' button is also present. The main area displays the results of a query named 'THE_OUTPUT'. The results show four rows of employee data, each consisting of a unique ID, first name, last name, department, and salary. The results table has a dark header row and light gray body rows. At the bottom of the results table, it says '4 rows returned in 0.03 seconds' and has a 'Download' link. The bottom of the page shows user information ('jothika.k.2024'), copyright notice ('Copyright © 1999, 2024, Oracle and/or its affiliates.'), and system details ('Oracle APEX 24.2.8'). The bottom right corner shows the system status ('ENG 08:58 AM').

THE_OUTPUT				
1003	Alice	Johnson	HR01	50000
1004	Bob	Williams	SALES1	55000
1002	Jane	Smith	DEV02	65000
1001	John	Doe	DEVO1	60000

4 rows returned in 0.03 seconds Download

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ENG 08:58 AM