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আন্তর্জাতিক ইসলামী বিশ্ববিদ্যালয় চট্টগ্রাম

International Islamic University Chittagong

Assignment

Assignment No. – **01**

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Course Title- DBMS (Lab)

Course Code: CSE-2424

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Part 1

Test your knowledge:

1.Initiate an iSQL*Plus session using the user ID and password that are provided by the instructor.

2. iSQL*Plus commands access the database.

Answer: False

3. The following SELECT statement executes successfully:

> SELECT last_name, job_id, salary AS Sal
> FROM employees;

Answer: True

4. The following SELECT statement executes successfully:

> SELECT *
> FROM job_grades;

Answer: True

5. There are four coding errors in the following statement. Can you identify them?

> SELECT   employee_id, last_name
> sal x 12   ANNUAL SALARY
> FROM   employees;

Answer: Four errors are in the following-
1. **There is no column named sal in the EMPLOYEES table, the right column name is SALARY.**
2. **A comma is missing after the LAST_NAME column in line 1.**
3. **In line 2, the multiplication operator is *, not x.**
4. **In line 2, The alias should read ANNUAL_SALARY or should be enclosed in double quotation marks. As we know, alias cannot include spaces (ANNUAL SALARY).**

Part 2

You have been hired as a SQL programmer for Acme Corporation. Your first task is to create some reports based on data from the Human Resources tables

6. Your first task is to determine the structure of the DEPARTMENTS table and its contents.

Name	Null?	Type
DEPARTMENT_ID	NOT NULL	NUMBER(4)
DEPARTMENT_NAME	NOT NULL	VARCHAR2(30)
MANAGER_ID		NUMBER(6)
LOCATION_ID		NUMBER(4)

Answer:

DESCRIBE departments
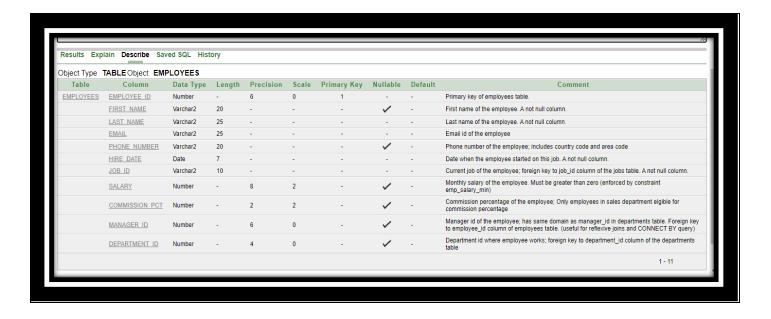SELECT *
FROM departments;

7. You need to determine the structure of the EMPLOYEES table.

Answer:

DESCRIBE employees

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **EMPLOYEES**

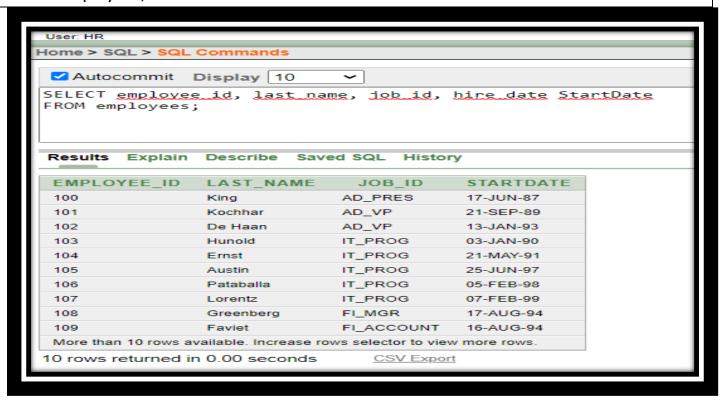| Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPLOYEES	EMPLOYEE_ID	Number	-	6	0	1	-	-	Primary key of employees table.
	FIRST_NAME	Varchar2	20	-	-	-	✓	-	First name of the employee. A not null column.
	LAST_NAME	Varchar2	25	-	-	-	-	-	Last name of the employee. A not null column.
	EMAIL	Varchar2	25	-	-	-	-	-	Email id of the employee
	PHONE_NUMBER	Varchar2	20	-	-	-	✓	-	Phone number of the employee; includes country code and area code
	HIRE_DATE	Date	7	-	-	-	-	-	Date when the employee started on this job. A not null column.
	JOB_ID	Varchar2	10	-	-	-	-	-	Current job of the employee; foreign key to job_id column of the jobs table. A not null column.
	SALARY	Number	-	8	2	-	✓	-	Monthly salary of the employee. Must be greater than zero (enforced by constraint emp_salary_min)
	COMMISSION_PCT	Number	-	2	2	-	✓	-	Commission percentage of the employee; Only employees in sales department elgible for commission percentage
	MANAGER_ID	Number	-	6	0	-	✓	-	Manager id of the employee; has same domain as manager_id in departments table. Foreign key to employee_id column of employees table. (useful for reflexive joins and CONNECT BY query)
	DEPARTMENT_ID	Number	-	4	0	-	✓	-	Department id where employee works; foreign key to department_id column of the departments table

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```
SELECT employee_id, last_name, job_id, hire_date StartDate
FROM employees;
```
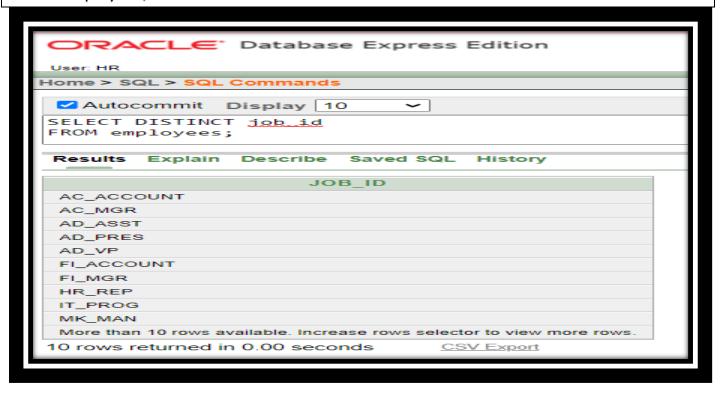
8. Test your query in the file lab_01_07.sql to ensure that it runs correctly.

SELECT employee_id, last_name, job_id, hire_date StartDate
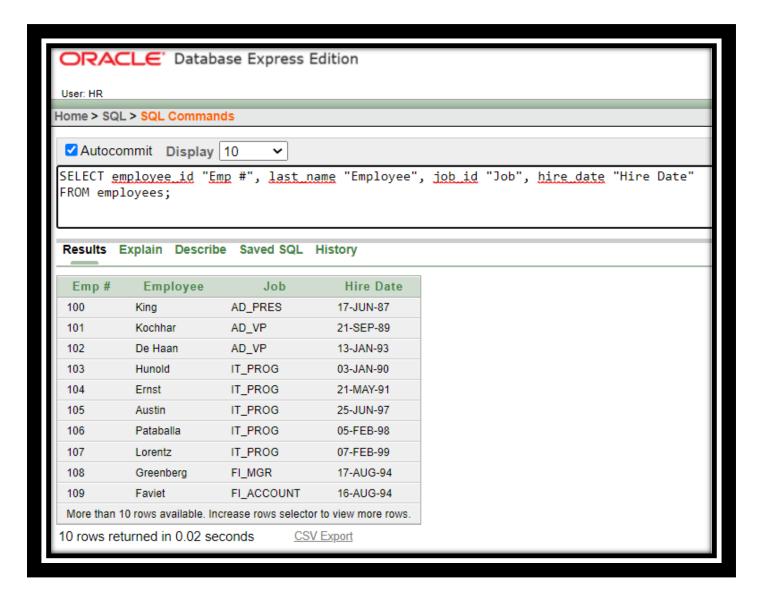FROM employees;

9. The HR department needs a query to display all unique job codes from the EMPLOYEES table.
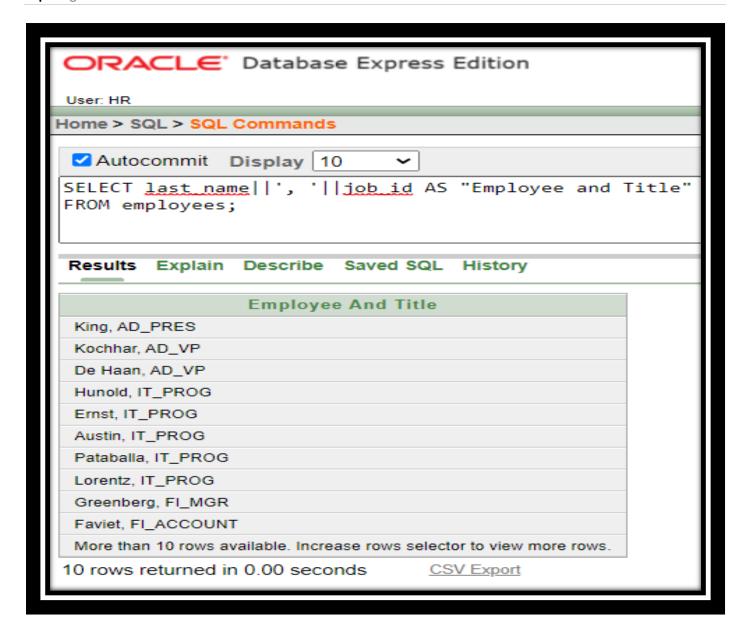
SELECT DISTINCT job_id
FROM employees;

10. The HR department wants more descriptive column headings for its report on employees. Copy the statement from lab_01_07.sql to the iSQL*Plus Edit window. Name the column headings Emp #, Employee, Job, and Hire Date, respectively. Then run your query again.

```
SELECT employee_id "Emp #", last_name "Employee",
 job_id "Job", hire_date "Hire Date"
FROM employees;
```
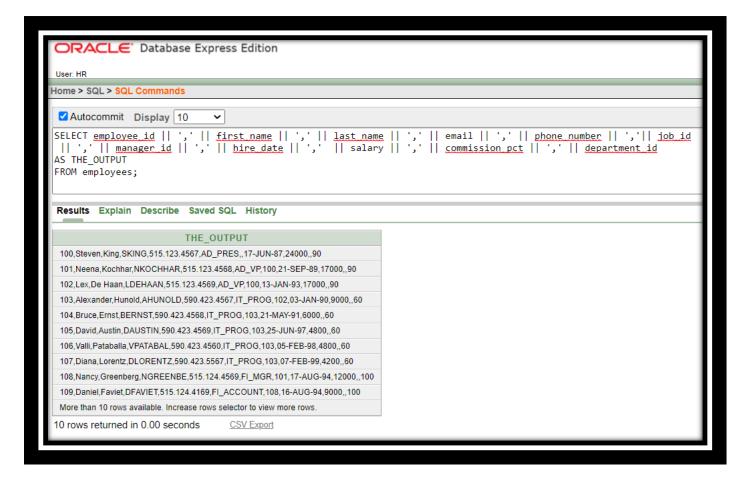

11. The HR department has requested a report of all employees and their job IDs. Display the last name concatenated with the job ID (separated by a comma and space) and name the column Employee and Title.

```
SELECT last_name||', '||job_id AS "Employee and Title"
FROM employees;
```

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

SELECT employee_id || ',' || first_name || ',' || last_name || ',' || email || ',' || phone_number || ','|| job_id
 || ',' || manager_id || ',' || hire_date || ',' || salary || ',' || commission_pct || ',' || department_id
AS THE_OUTPUT
FROM employees;

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