

**Experiment:3****DATE: 09-08-2024****WRITING BASIC SQL SELECT STATEMENTS**

Find the Solution for the following:

1. True OR False

The following statement executes successfully.

Identify the Errors

SELECT employee\_id, last\_name sal\*12 ANNUAL SALARY FROM employees;

Correction:

SELECT

employee\_id,

last\_name,

salary \* 12 AS annual\_salary

FROM

employees;

**EMPLOYEES TABLE**

| NAME           | NULL?    | TYPE        |
|----------------|----------|-------------|
| Employee_id    | Not null | Number(6)   |
| First_Name     |          | Varchar(20) |
| Last_Name      | Not null | Varchar(25) |
| Email          | Not null | Varchar(25) |
| Phone_Number   |          | Varchar(20) |
| Hire_date      | Not null | Date        |
| Job_id         | Not null | Varchar(10) |
| Salary         |          | Number(8,2) |
| Commission_pct |          | Number(2,2) |
| Manager_id     |          | Number(6)   |
| Department_id  |          | Number(4)   |

Queries

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

CREATE TABLE EMPLOYEES (

Employee\_id NUMBER(6) NOT NULL,

First\_Name VARCHAR2(20),

Last\_Name VARCHAR2(25) NOT NULL,

Email VARCHAR2(25) NOT NULL,

```

Phone_Number  VARCHAR2(20),
Hire_date     DATE      NOT NULL,
Job_id        VARCHAR2(10) NOT NULL,
Salary        NUMBER(8,2),
Commission_pct NUMBER(2,2),
Manager_id    NUMBER(6),
Department_id NUMBER(4),
CONSTRAINT emp_pk PRIMARY KEY (Employee_id)
);

```

Object Type TABLE Object EMPLOYEES

| Table     | Column         | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|-----------|----------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| EMPLOYEES | EMPLOYEE_ID    | NUMBER    | -      | 6         | 0     | 1           | -        | -       | -       |
|           | FIRST_NAME     | VARCHAR2  | 20     | -         | -     | -           | ✓        | -       | -       |
|           | LAST_NAME      | VARCHAR2  | 25     | -         | -     | -           | -        | -       | -       |
|           | EMAIL          | VARCHAR2  | 25     | -         | -     | -           | -        | -       | -       |
|           | PHONE_NUMBER   | VARCHAR2  | 20     | -         | -     | -           | ✓        | -       | -       |
|           | HIRE_DATE      | DATE      | 7      | -         | -     | -           | -        | -       | -       |
|           | JOB_ID         | VARCHAR2  | 10     | -         | -     | -           | -        | -       | -       |
|           | SALARY         | NUMBER    | -      | 8         | 2     | -           | ✓        | -       | -       |
|           | COMMISSION_PCT | NUMBER    | -      | 2         | 2     | -           | ✓        | -       | -       |
|           | MANAGER_ID     | NUMBER    | -      | 6         | 0     | -           | ✓        | -       | -       |
|           | DEPARTMENT_ID  | NUMBER    | -      | 4         | 0     | -           | ✓        | -       | -       |

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```
SELECT * FROM EMPLOYEES;
```

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL           | PHONE_NUMBER | HIRE_DATE  | JOB_ID | SALARY | COMMISSION_PCT | MANAGER_ID | DEPARTMENT_ID |
|-------------|------------|-----------|-----------------|--------------|------------|--------|--------|----------------|------------|---------------|
| 1           | JACK       | STEVE     | steve@gmail.com | IN001        | 09/09/2020 | DE001  | 15000  | .4             | 100        | 30            |
| 2           | THENU      | RAVI      | thenu@gmail.com | IN002        | 07/09/2007 | CS090  | 23000  | .9             | 101        | 35            |
| 3           | SANDY      | SIVA      | sandy@gmail.com | IN004        | 05/02/2003 | CS090  | 20000  | .9             | 100        | 35            |
| 4           | DHARSH     | DJ        | dj@gmail.com    | IN034        | 06/22/2003 | HR450  | 33300  | .3             | 105        | 70            |
| 5           | HEMA       | RAAGAEEL  | HEMA@gmail.com  | IN023        | 02/22/2020 | AR344  | 23000  | .5             | 101        | 60            |

5 rows returned in 0.00 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

**Results** [Explain](#) [Describe](#) [Saved SQL](#) [History](#)

| EMPLOYEE_ID | LAST_NAME | JOB_ID | HIRE_DATE  |
|-------------|-----------|--------|------------|
| 1           | STEVE     | DE001  | 09/09/2020 |
| 2           | RAVI      | CS090  | 07/09/2007 |
| 3           | SIVA      | CS090  | 05/02/2003 |
| 4           | DJ        | HR450  | 06/22/2003 |
| 5           | RAAGAEEL  | AR344  | 02/22/2020 |

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4. Provide an alias STARTDATE for the hire date.

| EMPLOYEE_ID | STARTDATE  |
|-------------|------------|
| 1           | 09/09/2020 |
| 2           | 07/09/2007 |
| 3           | 05/02/2003 |
| 4           | 06/22/2003 |
| 5           | 02/22/2020 |

5 rows returned in 0.01 seconds

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

| JOB_ID |
|--------|
| HR450  |
| AR344  |
| DE001  |
| CS090  |

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

| EMPLOYEE AND TITLE |
|--------------------|
| STEVE, DE001       |
| RAVI, CS090        |
| SIVA, CS090        |
| DJ, HR450          |
| RAAGAEI, AR344     |

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

SELECT

```
Employee_id || ', ' ||
NVL(First_Name, '') || ', ' ||
Last_Name || ', ' ||
Email || ', ' ||
NVL(Phone_Number, '') || ', ' ||
TO_CHAR(Hire_date, 'YYYY-MM-DD') || ', ' ||
Job_id || ', ' ||
NVL(TO_CHAR(Salary, '')) || ', ' ||
NVL(TO_CHAR(Commission_pct, '')) || ', ' ||
NVL(TO_CHAR(Manager_id, '')) || ', ' ||
NVL(TO_CHAR(Department_id, '')) AS THE_OUTPUT
```

FROM

EMPLOYEES;

| THE_OUTPUT |         |           |                  |        |             |        |        |     |      |    |  |  |
|------------|---------|-----------|------------------|--------|-------------|--------|--------|-----|------|----|--|--|
| 1,         | JACK,   | STEVE,    | steve@gmail.com, | IN001, | 2020-09-09, | DE001, | 15000, | .4, | 100, | 30 |  |  |
| 2,         | THENU,  | RAVI,     | thenu@gmail.com, | IN002, | 2007-07-09, | CS090, | 23000, | .9, | 101, | 35 |  |  |
| 3,         | SANDY,  | SIVA,     | sandy@gmail.com, | IN004, | 2003-05-02, | CS090, | 20000, | .9, | 100, | 35 |  |  |
| 4,         | DHARSH, | DJ,       | dj@gmail.com,    | IN034, | 2003-06-22, | HR450, | 33300, | .3, | 105, | 70 |  |  |
| 5,         | HEMA,   | RAAGAEEL, | HEMA@gmail.com,  | IN023, | 2020-02-22, | AR344, | 23000, | .5, | 101, | 60 |  |  |

5 rows returned in 0.00 seconds      [Download](#)