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	RAAGAEL	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	RAAGAEL	AR344	02/22/2020

5 rows returned in 0.00 seconds Download

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
RAAGAEL, 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, RAAGAEL, HEMA@gmail.com, IN023, 2020-02-22, AR344, 23000, .5, 101, 60

5 rows returned in 0.00 seconds Download