| Ex.No.: 3 |        | WRITING BASIC SQL SELECT STATEMENTS |
|-----------|--------|-------------------------------------|
| Date:     | 6/8/24 |                                     |

## **Find the Solution for the following:**

### **True OR False**

1. The following statement executes successfully.

## **Identify the Errors**

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

False ->Corrected Query and Output
Select employee\_id,last\_name,salary\*12 AS "Annual Salary" from Employees;

| EMPLOYEE_ID | LAST_NAME | Annual Salary |
|-------------|-----------|---------------|
| 101         | Doe       | 72000         |
| 102         | Smith     | 54000         |
| 103         | Johnson   | 86400         |
| 104         | Davis     | 60000         |
| 105         | Miller    | 74400         |
| 106         | Wilson    | 67200         |
| 107         | Brown     | 69600         |
| 108         | Taylor    | 55200         |
| 109         | AUSTIN    | 85200         |
| 110         | Thomas    | 63600         |

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

# DESC department;

| Table      | Column      | Data Type | Length | Precision | Scale | Primary Key | Nullable | Default | Comment |
|------------|-------------|-----------|--------|-----------|-------|-------------|----------|---------|---------|
| DEPARTMENT | DEPT_ID     | NUMBER    | 141    | 6         | 0     | .=:         |          | -       | -       |
|            | DEPT_NAME   | VARCHAR2  | 20     |           | 4     | -           | -        | :=:     | (4)     |
|            | MANAGER_ID  | NUMBER    |        | 6         | 0     | .=.2.1      | /        | ME.     | MT.     |
|            | LOCATION_ID | NUMBER    | 120    | 4         | 0     | <u>_</u> () | ~        | 72      | 72      |

# Select \* from Department;

| DEPT_ID | DEPT_NAME        | MANAGER_ID | LOCATION_ID |
|---------|------------------|------------|-------------|
| 10      | Admin            | 101        | 1000        |
| 20      | Marketing        | 102        | 1001        |
| 30      | Purchasing       | 103        | 1002        |
| 40      | HR               | 104        | 1003        |
| 50      | П                | 105        | 1004        |
| 60      | Sales            | 106        | 1005        |
| 70      | Customer Service | 107        | 1006        |
| 80      | Accounting       | 108        | 1007        |
| 90      | R&D              | 109        | 1008        |
| 100     | Legal            | 110        | 1009        |

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

SELECT employee\_id, last\_name, job\_id, hire\_date FROM employees;

| EMPLOYEE_ID | LAST_NAME | JOB_ID     | HIRE_DATE  |
|-------------|-----------|------------|------------|
| 101         | Doe       | IT_PROG    | 01/15/2020 |
| 102         | Smith     | HR_REP     | 02/20/2019 |
| 103         | Johnson   | SA_MAN     | 05/30/2021 |
| 104         | Davis     | AC_ACCOUNT | 10/10/2020 |
| 105         | Miller    | MK_MAN     | 07/25/2018 |
| 106         | Wilson    | SA_REP     | 03/12/2022 |
| 107         | Brown     | IT_PROG    | 11/05/2017 |
| 108         | Taylor    | HR_REP     | 12/15/2019 |
| 109         | AUSTIN    | AC_MGR     | 08/22/2021 |
| 110         | Thomas    | MK_REP     | 04/01/2020 |

4. Provide an alias STARTDATE for the hire date.

SELECT employee\_id, last\_name, job\_id, hire\_date AS STARTDATE FROM employees;

| EMPLOYEE_ID | LAST_NAME | JOB_ID     | STARTDATE  |
|-------------|-----------|------------|------------|
| 101         | Doe       | IT_PROG    | 01/15/2020 |
| 102         | Smith     | HR_REP     | 02/20/2019 |
| 103         | Johnson   | SA_MAN     | 05/30/2021 |
| 104         | Davis     | AC_ACCOUNT | 10/10/2020 |
| 105         | Miller    | MK_MAN     | 07/25/2018 |
| 106         | Wilson    | SA_REP     | 03/12/2022 |
| 107         | Brown     | IT_PROG    | 11/05/2017 |
| 108         | Taylor    | HR_REP     | 12/15/2019 |
| 109         | AUSTIN    | AC_MGR     | 08/22/2021 |
| 110         | Thomas    | MK_REP     | 04/01/2020 |

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

SELECT DISTINCT job\_id FROM employees;

|     | JOB_ID  |
|-----|---------|
| IT_ | PROG    |
| AC. | ACCOUNT |
| AC. | _MGR    |
| SA  | _MAN    |
| MK  | _MAN    |
| SA  | _REP    |
| MK  | _REP    |
| HR  | REP     |

 $6.\ Display$  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;

| =1 | MPLOYEE and TITL |
|----|------------------|
| Do | oe, IT_PROG      |
| Sr | mith, HR_REP     |
| Jo | hnson, SA_MAN    |
| Da | avis, AC_ACCOUNT |
| Mi | ller, MK_MAN     |
| W  | ilson, SA_REP    |
| Br | own, IT_PROG     |
| Та | ylor, HR_REP     |
| Αl | JSTIN, AC_MGR    |
| Th | nomas, MK_REP    |

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

<code>SELECT</code> employee\_id  $\|\,',\,'\,\|$  last\_name  $\|\,',\,'\,\|$  job\_id  $\|\,',\,'\,\|$  hire\_date AS <code>THE\_OUTPUT</code> FROM employees;

|      | THE_OUTPUT                    |
|------|-------------------------------|
| 101, | Doe, IT_PROG, 01/15/2020      |
| 102, | Smith, HR_REP, 02/20/2019     |
| 103, | Johnson, SA_MAN, 05/30/2021   |
| 104, | Davis, AC_ACCOUNT, 10/10/2020 |
| 105, | Miller, MK_MAN, 07/25/2018    |
| 106, | Wilson, SA_REP, 03/12/2022    |
| 107, | Brown, IT_PROG, 11/05/2017    |
| 108, | Taylor, HR_REP, 12/15/2019    |
| 109, | AUSTIN, AC_MGR, 08/22/2021    |
| 110, | Thomas, MK REP, 04/01/2020    |