DP Database Programming with SQL

Section\_2

DP 2-1: Columns, Characters and Rows

1. The manager of Global Fast Foods would like to send out coupons for the upcoming sale. He wants to send one coupon to each household. Create the SELECT statement that returns the customer last name and a mailing address.

QUERY

SELECT last\_name,email

FROM Global Fast Foods;

1. Each statement below has errors. Correct the errors and execute the query in Oracle Application Express.

a.

SELECT first name

FROM f\_staffs;

b.

SELECT first\_name |" " | last\_name AS "DJs on Demand Clients"

FROM d\_clients;

c.

SELECT DISCTINCT f\_order\_lines

FROM quantity;

d.

SELECT order number

FROM f\_orders;

QUERY’S

1. SELECT first\_name

FROM f\_staffs;

1. SELECT first\_name ||" " || last\_name AS "DJs on Demand Clients"

FROM d\_clients;

1. SELECT DISCTINCT f\_order\_lines

FROM quantity;

1. Sue, Bob, and Monique were the employees of the month. Using the f\_staffs table, create a SELECT statement to display the results as shown in the Super Star chart.

Super Star

\*\*\* Sue \*\*\* Sue \*\*\*

\*\*\* Bob \*\*\* Bob \*\*\*

\*\*\* Monique \*\*\* Monique \*\*\*

QUERY

SELECT ‘\*\*\*’||last\_name||’\*\*\*’||last\_name||’\*\*\*’

FROM f\_staffs;

1. Which of the following is TRUE about the following query?

SELECT first\_name, DISTINCT birthdate

FROM f\_staffs;

a. Only two rows will be returned.

b. Four rows will be returned.

c. Only Fred 05-Jan-1988 and Lizzie 10-Nov-1987 will be returned.

d. No rows will be returned.

ANS : d. No rows will be returned.

The query contains a syntax error. The DISTINCT keyword should be applied to the entire SELECT statement, not just a single column. The correct syntax would be:

SELECT DISTINCT first\_name, birthdate

FROM f\_staffs;

1. Global Fast Foods has decided to give all staff members a 5% raise. Prepare a report that presents the output as shown in the chart.

EMPLOYEE LAST NAME CURRENT SALARY SALARY WITH 5% RAISE

QUERY

SELECT last\_name AS “EMPLOYEE LAST NAME”,salary AS “CURRENT SALARY”,salart\*0.05 AS “SALARY WITH 5% RAISE”

FROM global\_fast\_foods;

1. Create a query that will return the structure of the Oracle database EMPLOYEES table. Which columns are marked “nullable”? What does this mean?

DESCRIBE EMPLOYEES;

The output will look something like this:

Name Null? Type

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EMPLOYEE\_ID NOT NULL NUMBER

FIRST\_NAME NOT NULL VARCHAR2(20)

LAST\_NAME NOT NULL VARCHAR2(25)

EMAIL NOT NULL VARCHAR2(25)

PHONE\_NUMBER VARCHAR2(20)

HIRE\_DATE NOT NULL DATE

JOB\_ID NOT NULL VARCHAR2(10)

SALARY NUMBER(8,2)

COMMISSION\_PCT NUMBER(2,2)

MANAGER\_ID NUMBER

DEPARTMENT\_ID NUMBER

1. The owners of DJs on Demand would like a report of all items in their D\_CDs table with the following column headings: Inventory Item, CD Title, Music Producer, and Year Purchased. Prepare this report.

QUERY

SELECT

item\_id AS "Inventory Item",

title AS "CD Title",

producer AS "Music Producer",

year\_purchased AS "Year Purchased"

FROM

D\_CDs;

1. True/False -- The following SELECT statement executes successfully: SELECT last\_name, job\_id, salary AS Sal FROM employees;

TRUE

1. True/False -- The following SELECT statement executes successfully:

SELECT \* FROM job\_grades;

TRUE

1. There are four coding errors in this statement. Can you identify them?

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

Yes, I can identify the errors in the statement. Here they are:

1. Missing comma: There should be a comma between last\_name and sal.

2. Incorrect aliasing: The AS keyword is missing before the alias sal.

3. Missing operator: There should be an operator (e.g., \*) between sal and 12.

4. Incorrect aliasing (again): The AS keyword is missing before the alias ANNUAL SALARY.

Here's the corrected statement:

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

1. In the arithmetic expression salary\*12 - 400, which operation will be evaluated first?

In the arithmetic expression salary\*12 - 400, the multiplication operation (salary\*12) will be evaluated first.

This is because of the order of operations (PEMDAS/BODMAS), which dictates that:

1. Which of the following can be used in the SELECT statement to return all columns of data in the

Global Fast Foods f\_staffs table?

a. column names

b. \*

c. DISTINCT id

d. both a and b

The correct answer is:

b. \*

The asterisk (\*) is a wildcard character that can be used in the SELECT statement to return all columns of data in a table.

1. Using SQL to choose the columns in a table uses which capability?

a. selection

b. projection

c. partitioning

d. join

The correct answer is:

b. projection

1. SELECT last\_name AS "Employee". The column heading in the query result will appear as:

a. EMPLOYEE

b. employee

c. Employee

d. "Employee:

1. Employee is the correct answer.
2. Which expression below will produce the largest value? a. SELECT salary\*6 + 100 b. SELECT salary\* (6 + 100) c. SELECT 6(salary+ 100) d. SELECT salary+6\*100

The correct answer is:

b. SELECT salary\* (6 + 100)

1. Which statement below will return a list of employees in the following format?

Mr./Ms. Steven King is an employee of our company.

a. SELECT "Mr./Ms."||first\_name||' '||last\_name 'is an employee of our company.' AS

"Employees"

FROM employees;

b. SELECT 'Mr./Ms. 'first\_name,last\_name ||' '||'is an employee of our company.'

FROM employees;

c. SELECT 'Mr./Ms. '||first\_name||' '||last\_name ||' '||'is an employee of our company.' AS

"Employees"

FROM employees ;

d. SELECT Mr./Ms. ||first\_name||' '||last\_name ||' '||"is an employee of our company." AS

"Employees"

FROM employee

The correct answer is:

c. SELECT 'Mr./Ms. '||first\_name||' '||last\_name ||' '||'is an employee of our company.' AS "Employees" FROM employees;

1. Which is true about SQL statements? a. SQL statements are case-sensitive b. SQL clauses should not be written on separate lines. c. Keywords cannot be abbreviated or split across lines. d. SQL keywords are typically entered in lowercase; all other words in uppercase.

The correct answer is:

c. Keywords cannot be abbreviated or split across lines.

SQL keywords, such as SELECT, FROM, WHERE, etc., cannot be abbreviated or split across multiple lines. They must be written in full and on a single line.

1. .Which queries will return three columns each with UPPERCASE column headings?

a. SELECT "Department\_id", "Last\_name", "First\_name"

FROM employees;

b. SELECT DEPARTMENT\_ID, LAST\_NAME, FIRST\_NAME

FROM employees;

c. SELECT department\_id, last\_name, first\_name AS UPPER CASE

FROM employees

d. SELECT department\_id, last\_name, first\_name

FROM employees;

he correct answer is:

b. SELECT DEPARTMENT\_ID, LAST\_NAME, FIRST\_NAME FROM employees;

This query will return three columns with uppercase column headings because the column names are specified in uppercase.

1. 9.Which statement below will likely fail?

a. SELCT \* FROM employees;

b. Select \* FROM employees;

c. SELECT \* FROM EMPLOYEES;

d. SelecT\* FROM employees;

The correct answer is:

a. SELCT \* FROM employees;