**LAB 9**

**Qno1:**

list all tables in the employees database

Answer:

USE EMPLOYEE;

show TABLES;

**Qno2:**

Write a query to find the names (first\_name, last\_name) and the salaries of the employees who have a higher salary than the employee whose last\_name=’Bull’.

Answer:-

Select FIRST\_NAME, LAST\_NAME, SALARY

FROM employees

WHERE SALARY>(SELECT salary FROM employees WHERE last\_name=’Bull’);

**Qno3:**

**Answer:-**

Select first\_name , last\_name

FROM employees

WHERE department\_id

IN(SELECT department\_id FROM departments WHERE department\_name=’IT’);

**LAB 10**

**Qno1:-**

Write a query to find the names (first\_name, last\_name) of the employees who have a manager and work for a department based in the United States.

Answer:-

SELECT first\_name, last\_name FROM employees

WHERE manager\_id in(select employee\_id FROM employees WHERE department\_id

IN(SELECT department\_id FROM departments WHERE location\_id IN(select location\_id from locations

Where country\_id=’US’)));

**Qno2:-**

Write a query to find the names (first\_name, last\_name) of the employees who are managers.

Answer:-

SELECT first\_name, last\_name

FROM employees

WHERE (employee\_id IN(SELECT manager\_id FROM employees));

**Qno3:-**

Write a query to find the names (first\_name, last\_name), the salary of the employees whose salary is greater than the average salary

Answer:-

SELECT first\_name, last\_name, salary FROM employees

WHERE salary > (SELECT AVG(salary) FROM employees);

**Qno4:-**

Write a query to find the names (first\_name, last\_name), the salary of the employees whose salary is equal to the minimum salary for their job grade.

Answer:-

SELECT first\_name,last\_name,salary FROM employees WHERE employees.salary=(SELECT min\_salary FROM jobs WHERE employees.job\_id=jobs.job\_id);

**Qno5:-**

Write a query to find the names (first\_name, last\_name), the salary of the employees who earn more than the average salary and who works in any of the IT departments.

Answer:-

SELECT first\_name,last\_name,salary

FROM employees WHERE department\_id IN (SELECT department\_id FROM departments WHERE department\_name LIKE ‘IT**%**’)AND salary>(SELECT avg(salary) From employees);

**Qno6:-**

Write a query to find the names (first\_name, last\_name), the salary of the employees who earn more than Mr. Bell

Answer:-

SELECT \* FROM employees WHERE salary > ALL(SELECT AVG(salary) FROM employees GROUP BY

Department\_id);

**Qno7:-**

Write a query to find the names (first\_name, last\_name), the salary of the employees who earn the same salary as the minimum salary for all departments

Answer:-

SELECT \* FROM employees

WHERE salary=(SELECT MIN(salary) FROM employees);

**Qno8:-**

Write a query to find the names (first\_name, last\_name), the salary of the employees whose salary greater than the average salary of all departments

Answer:-

SELECT first\_name,last\_name from employees whose(SELECT AVG(salary) from departments)

**Qno9:-**

Write a query to find the names (first\_name, last\_name) and salary of the employees who earn a salary that is higher than the salary of all the Shipping Clerk (JOB\_ID = ’SH\_CLERK’). Sort the results of the salary of the lowest to highest

Answer:-

**SELECT first\_name,last\_name, job\_id, salary**

**FROM employees**

**WHERE salary >**

**ALL (SELECT salary FROM employees WHERE job\_id = 'SH\_CLERK') ORDER BY salary;**

**Qno10:-**

.Write a query to find the names (first\_name, last\_name) of the employees who are not supervisors.

**Answer:-**

**SELECT b.first\_name,b.last\_name**

**FROM employees b**

**WHERE NOT EXISTS (SELECT 'X' FROM employees a WHERE a.manager\_id = b.employee\_id);**

**Qno11:-**

Write a query to display the employee ID, first name, last names, and department names of all employees.

Answer:-

**SELECT employee\_id, first\_name, last\_name,**

**(SELECT department\_name FROM departments d**

**WHERE e.department\_id = d.department\_id) department**

**FROM employees e ORDER BY department;**

**Qno12:-**

Write a query to display the employee ID, first name, last names, salary of all employees whose salary is above average for their departments

Answer:-

**SELECT employee\_id, first\_name**

**FROM employees AS A**

**WHERE salary >**

**(SELECT AVG(salary) FROM employees WHERE department\_id = A.department\_id);**

**Qno13:-**

Write a query to fetch even numbered records from employees table

Answer:-

**SET @i = 0;**

**SELECT i, employee\_id**

**FROM (SELECT @i := @i + 1 AS i, employee\_id FROM employees)**

**a WHERE MOD(a.i, 2) = 0;**

**Qno14:-**

Write a query to find the 5th maximum salary in the employees table.

Answer:-

**SELECT DISTINCT salary**

**FROM employees e1**

**WHERE 5 = (SELECT COUNT(DISTINCT salary)**

**FROM employees e2**

**WHERE e2.salary >= e1.salary);**

**Qno15:-**

Write a query to find the 4th minimum salary in the employees table

**Answer:-**

**SELECT DISTINCT salary**

**FROM employees e1**

**WHERE 4 = (SELECT COUNT(DISTINCT salary)**

**FROM employees e2**

**WHERE e2.salary <= e1.salary);**

**Qno16:-**

Write a query to select last 10 records from a table.

Answer:-

**SELECT \* FROM (**

**SELECT \* FROM employees ORDER BY employee\_id DESC LIMIT 10) sub**

**ORDER BY employee\_id ASC;**

**Qno17:-**

Write a query to list department number, name for all the departments in which there are no employees in the department

Answer:-

**SELECT \* FROM departments**

**WHERE department\_id**

**NOT IN (select department\_id FROM employees);**

**Qno18:-**

Write a query to get 3 maximum salaries.

Answer:-

**SELECT DISTINCT salary**

**FROM employees a**

**WHERE 3 >= (SELECT COUNT(DISTINCT salary)**

**FROM employees b**

**WHERE b.salary >= a.salary)**

**ORDER BY a.salary DESC;**

**Qno19:-**

Write a query to get 3 minimum salaries

Answer:-

**SELECT DISTINCT salary**

**FROM employees a**

**WHERE 3 >= (SELECT COUNT(DISTINCT salary)**

**FROM employees b**

**WHERE b.salary <= a.salary)**

**ORDER BY a.salary DESC;**

**Qno20:-**

Write a query to get nth max salaries of employees.Further practice with nested queries

Answer:-

**SELECT \***

**FROM employees emp1**

**WHERE (1) = (**

**SELECT COUNT(DISTINCT(emp2.salary))**

**FROM employees emp2**

**WHERE e**mp2.salary > emp1**.salary);**

**LAB11**

**Qno1:-**

Create a table tow columns for name and family\_name respectively. Insert the names your three friends in lower case case caracters. Write a query to create columns aliased fullname by using the INITCAT() and CONCAT() functions.

Answer:-

SELECT customer\_id, CONCAT(first\_name,second\_name,last\_name)AS All\_names from customer

**LAB12**

**Qno1:-**

Print countrycode and sum of percentage from countrylangauge, apply groupby on countrycode.

Answer:-

SELECT countrycode ,SUM(PER(countrylanguage) from country language Group By(countrycode)

**Qno2:-**

Find sum of any integer column from country table.

Answer:-

Select SUM(population) from country table;

**Qno3:-**

Count number of records in country table

Answer:-

SELECT COUNT(records) from countrytable;

**Qno4:-**

Count Distinct (languages) from countrylanguage

Answer:-

SELECT DISTINCT(languages) from countrylanguage;

**LAB13**

**Qno1:-**

Select customers name, number , phone from customers table, select checknumber from payments table. Display it for all customers. [either they have made payment or they haven’t include all customers].

Answer:-

SELECT customer,phone from customertable;

SELECT checknumber from payment;

**Qno2:-**

Display orderdetails for products. Use inner join.

Answer:-

**LAB14**

**Qno1:-**

Update customer with any a particular order number (you can select any order number).

UPDATE customer  
SET order\_no = 5;

**Qno2:-**

Applying union print data of orders and order details table.

**Answer:-**

SELECT data.customerdata from customers  
UNION ALL  
SELECT order.orderdata FROM orders;

**LAB15**

**Qno1:-**

Apply update on any country name.

Answer:-

UPDATE country SET column1=”England” WHERE column=”Islamabad”;

**Qno2:-**

Delete Islamabad city by applying delete query on city table with it’s ID

Answer:-

DELETE FROM city

WHERE country.id = ANY (SELECT id FROM city WHERE id = 2);

**Qno3:-**

Try to update values for null column COMM column

**Answer:-**

**UPDATE[city]**

**SET [COMM]=0**

**WHERE [COMM] is null;**

**Qno4:-**

Try to update it for a specific employee whose salary is less than 1000

Answer:-

UPDATE employee WHERE employee<1000;

**Qno5:-**

Try to insert values in customers table

Answer:-

INSERT INTO city  
VALUES (“Rawalpindi”, “Sialkot”, “Mirpur”);

**LAB16**

**Qno1:-**

The first column is called supplier\_id which is created as a number data type (maximum 10 digits in length) and cannot contain null values.

Answer:-

CREATE TABLE suppliers(supplier\_id int(10) NOT NULL);

**Qno2:-**

The second column is called supplier\_name which is a varchar2 datatype (50 maximum characters in length) and also can not contain null values

Answer:-

CREATE TABLE suppliers(supplier\_id int(10) NOT NULL,supplier\_name varchar2(50) NOT NULL);

**Qno3:-**

The third column is called address which is a varchar2 data type but can contain null values.

Answer:-

CREATE TABLE suppliers(supplier\_id int(10) NOT NULL,supplier\_name varchar(50) NOT NULL,address varchar2 NOT NULL);

**Qno4:-**

Define the supplier\_id as the primary key

Answer:-

CREATE TABLE suppliers(supplier\_id NOT NULL AUTO\_INCREMENT,supplier\_id int(10) NOT NULL,supplier\_name varchar(50) NOT NULL,address varchar2 NOT NULL,PRIMARY KEY(supplier\_id);

**Qno5:-**

Create a second table named as Item with columns:

Answer:-

CREATE TABLE Item();

**Qno6:-**

The first column itemname any length you want

Answer:-

CREATE TABLE Item(itemname varchar(255);

**Qno7:-**

The second column supplierId as foreignkey in item table

Answer:-

CREATE TABLE item (  
    itemname varchar(255),  
    FOREIGN KEY (supplier\_id) REFERENCES Persons(supplier\_id)  
);

**Qno8:-**

The third column should be itemprice In INT

Answer:-

CREATE TABLE item (  
    itemname varchar(255),

Itemprice int NOT NULL,  
    FOREIGN KEY (supplier\_id) REFERENCES Persons(supplier\_id)  
);

**LAB17**

**Qno1:-**

**LAB20**

**Qno1:-**

Write a SQL function to convert temperature from Fahrenheit to Celsius scale

Answer:-

DECLARE

temp1 NUMBER := &input\_a\_temp;

t\_scale CHAR := '&input\_temp\_scale';

new\_temp NUMBER;

new\_scale CHAR;

BEGIN

IF t\_scale != 'C'

AND

t\_scale != 'F' THEN

dbms\_output.Put\_line ('The scale you input is not a valid scale');

new\_temp := 0;

new\_scale := 'C';

ELSE

IF t\_scale = 'C' THEN

new\_temp := ( ( 9 \* temp1 ) / 5 ) + 32;

new\_scale := 'F';

ELSE

new\_temp := ( ( temp1 - 32 ) \* 5 ) / 9;

new\_scale := 'C';

END IF;

END IF;

dbms\_output.Put\_line ('The new temperature in scale '

||new\_scale

||' is: '

||new\_temp);

END;

/

**Qno2:-**

Write a SQL function to find GP and letter grade from percentage marks as per CIIT grading system.

Answer:-

SELECT

\*,

(Asst1 + Asst2 + Exam) AS TotalMark,

(IF(TotalMark > 84.5, 'A', IF (TotalMark > 64.5, 'B',

IF(TotalMark > 49.5, 'C', IF (TotalMark > 29.5, 'D', 'E'))))) AS Grade

FROM Results