create database employee;

use employee;

create table emp\_record\_table (

EMP\_ID varchar(20) Not Null,

FIRST\_NAME varchar (20) Not null,

LAST\_NAME varchar (20) not null,

Gender varchar (10) not null,

ROLE varchar (20) not null,

DEPT varchar (20) NOT NULL

);

create table Proj\_table(

ROJECT\_ID varchar(20) not null,

PROJ\_Name varchar(20) not null,

domain varchar(20) not null,

START\_DATE varchar(20) not null,

CLOSURE\_DATE varchar(20) not null,

DEV\_QTR varchar(20) not null,

status varchar(20) not null

);

create table Data\_science\_team(

EMP\_ID varchar(20) Not Null,

FIRST\_NAME varchar (20) Not null,

LAST\_NAME varchar (20) not null,

Gender varchar (10) not null,

ROLE varchar (20) not null,

DEPT varchar (20) NOT NULL,

COUNTRY varchar(20) not null,

CONTINENT varchar(20) not null

);

2. select EMP\_ID, FIRST\_NAME, LAST\_NAME, GENDER, Dept from emp\_record\_table;

3. Write a query to fetch EMP\_ID, FIRST\_NAME, LAST\_NAME, GENDER, and DEPARTMENT from the employee record table, andmake a list of employees and details of their department

Ans.: select EMP\_ID, FIRST\_NAME, LAST\_NAME, GENDER, Dept from emp\_record\_table;

4. **Write a query to fetch EMP\_ID, FIRST\_NAME, LAST\_NAME, GENDER, DEPARTMENT, and EMP\_RATING if the EMP\_RATING is:**

* 1. **less than two**

Ans.: select EMP\_ID, FIRST\_NAME, LAST\_NAME, GENDER, DEPT, EMP\_RATING, EMP\_RATING from emp\_record\_table where (emp\_rating <2);

* 1. **greater than four**

Ans.: select EMP\_ID, FIRST\_NAME, LAST\_NAME, GENDER, DEPT, EMP\_RATING, EMP\_RATING from emp\_record\_table where (emp\_rating >4);

* 1. **between two and four**

Ans.: select EMP\_ID, FIRST\_NAME, LAST\_NAME, GENDER, DEPT, EMP\_RATING, EMP\_RATING from emp\_record\_table where (emp\_rating<4 and EMP\_RATING>2);

1. Write a query to concatenate the FIRST\_NAME and the LAST\_NAME of employees in the Finance department from the employee table and then give the resultant column alias as NAME.

Ans.: select concat(First\_name," ", Last\_name) as NAME from employee.emp\_record\_table;

1. Write a query to list only those employees who have someone reporting to them. Also, show the number of reporters (including the President).

Ans.: SELECT MANAGER\_ID, COUNT(EMP\_ID) as EMP\_COUNT

FROM emp\_record\_table

GROUP BY MANAGER\_ID

ORDER BY EMP\_COUNT DESC;

1. Write a query to list down all the employees from the healthcare and finance departments using union. Take data from the employee record table.

Ans.: select FIRST\_NAME from emp\_record\_table union select dept from emp\_record\_table where (dept="HEALTHCARE" or dept="FINANCE");

1. Write a query to list down employee details such as EMP\_ID, FIRST\_NAME, LAST\_NAME, ROLE, DEPARTMENT, and EMP\_RATING grouped by dept. Also include the respective employee rating along with the max emp rating for the department.

Ans.:

Select Select EMP\_ID, FIRST\_NAME, LAST\_NAME, ROLE, DEPT, EMP\_RATING from emp\_record\_table where EMP\_RATING in (select max(EMP\_RATING) from emp\_record\_table group by dept);

1. **Write a query to calculate the minimum and the maximum salary of the employees in each role. Take data from the employee record table.**

Ans: select Role, min(salary), max(salary) from emp\_record\_table group by role;

1. **Write a query to assign ranks to each employee based on their experience. Take data from the employee record table.**

**Ans** .: SELECT first\_name, last\_name, role, RANK() OVER (ORDER BY exp DESC) from emp\_record\_table;

1. **Write a query to create a view that displays employees in various countries whose salary is more than six thousand.Take data from the employee record table.**

**Ans.: create view v1 as select \* from emp\_record\_table where salary in (select salary from emp\_record\_table where salary>6000 group by country)**

1. **Write a nested query to find employees with experience of more than ten years. Take data from the employee record table.**

**Ans.: select \* from emp\_record\_table where salary in(select salary from emp\_record\_table where salary>10000)**

1. **Write a query to create a stored procedure to retrieve the details of the employees whose experience is more than three years. Take data from the employee record table.**

**Ans.: CREATE DEFINER=`root`@`localhost` PROCEDURE `proc1`()**

**BEGIN**

**select\* from emp\_record\_table;**

**END**

**call proc1();**

1. **Write a query using stored functions in the project table to check whether the job profile assigned to each employee in the data science team matches the organization’s set standard. The standard is given as follows:**
   1. **Employee with experience less than or equal to 2 years, assign 'JUNIOR DATA SCIENTIST’**
   2. **Employee with experience of 2 to 5 years, assign 'ASSOCIATE DATA SCIENTIST’**
   3. **Employee with experience of 5 to 10 years, assign 'SENIOR DATA SCIENTIST’**
   4. **Employee with experience of 10 to 12 years, assign 'LEAD DATA SCIENTIST’,**
   5. **Employee with experience of 12 to 16 years, assign 'MANAGER'**

**Ans.: CREATE DEFINER=`root`@`localhost` PROCEDURE `St\_proc`()**

**BEGIN**

**select \*,**

**case**

**when exp<="2" and role="JUNIOR DATA SCIENTIST" then "correct"**

**when exp>"2" and exp<="5" and role="ASSOCIATE DATA SCIENTIST" then "correct"**

**when exp>"5" and exp<="10" and role="SENIOR DATA SCIENTIST" then "correct"**

**when exp>"10" and exp<="12" and role="LEAD DATA SCIENTIST" then "correct"**

**when exp>"12" and exp<="16" and role="MANAGER" then "correct"**

**end as result**

**from data\_science\_team;**

**END**

**call st\_proc();**

1. **Create an index to improve the cost and performance of the query to find the employee whose FIRST\_NAME is ‘Eric’ in the employee table after checking the execution plan.**

**Ans.: create index indx2 on emp\_record\_table(FIRST\_name(255));**

**explain select \* from emp\_record\_table where first\_name="Eric";**

1. **Write a query to calculate the bonus for all the employees, based on their ratings and salaries (Use the formula: 5% of salary \* employee rating).**

**Ans.: select \*, (.05\*salary\*EMP\_RATING) as Bonus from emp\_record\_table;**

1. **Write a query to calculate the average salary distribution based on the continent and country. Take data from the employee record table.**

**Ans.: select emp\_id, first\_name, last\_name, country, continent, avg(salary) from emp\_record\_table group by continent, country;**