**Database Management Systems**

**Course code: CS/AI 3103**

**Assignment -5**

**Note:** Consider the database or tables you have created in assignment-1 to solve this assignment.

**Instructions to open mysql and using created database**

1. **Start mysql using**

$ mysql -u root –p

(enter password if prompted)

1. **Use database inside which you have created and store the tables given in the assignment-1**

use studentdb;

1. **Use the following table created in assignment-1 and assignment-4 to solve this assignment**

Student (snum, sname, major, standing, age)

Faculty (fid, fname, deptid)

Class (name, meets, room, fid)

Enrolled (snum, cname)

Employee(empid, empname, department, salary, bonus)

1. Exercise on DATE

**Syntax: -- The 'Date' type contains a date value in 'yyyy-mm-dd'**

1. Add the column hiredate, currentdate, EDOB in the employee Table

**Solution: Alter table employee add (hiredate date, currentdate date, EDOB date);**

1. Update the following values into employee table.

**employee**

|  |  |  |
| --- | --- | --- |
| **hiredate** | **currentdate** | **EDOB** |
| 2008-09-21 | 2022-10-04 | 1990-01-02 |
| 2019-10-02 | 2022-10-04 | 1982-10-17 |
| 2008-09-21 | 2022-10-04 | 1984-03-03 |
| 2022-02-19 | 2022-10-04 | 1980-10-21 |
| 2020-08-12 | 2022-10-04 | 1983-12-19 |
| 2008-09-21 | 2022-10-04 | 1980-05-21 |
| 2015-07-05 | 2022-10-04 | 1992-09-14 |

1. Write the sql query to find the employee ids and experience of each employee.

**Solution: select empid, datediff(currentdate,hiredate) as Experience from employee;**

**-- Function YEAR (date), MONTH (date), DAY (date) returns the year, month, day part of the given date**

1. Write the sql query to find the employee id and employee name who joined in the year 2008.

**Solution: select empid, empname FROM employee WHERE YEAR (hiredate) = 2008;**

1. Write the sql query to select employee id and employee name from employee table whose birthday is today.

**Solution: SELECT empid, empname FROM Employee where MONTH(EDOB) = MONTH(currentdate) AND DAY(EDOB) = DAY(currentdate);**

**-- Function TIMESTAMPDIFF(unit, start, end) returns the difference in the unit specified**

1. List the employee id, employee name, employee EDOB, and age of all Employees.

**Solution: SELECT empid, empname, EDOB, TIMESTAMPDIFF(YEAR, EDOB, currentdate) AS age FROM Employee;**

1. List the employee id, employee name, and experience from employee table whose experience is more than 1400 days.

**Solution: SELECT empid, empname, TIMESTAMPDIFF(day,hiredate,currentdate) as Experience FROM employee WHERE TIMESTAMPDIFF(DAY,hiredate,currentdate) > 1400;**

**OR**

**-- Functions TO\_DAYS(date) converts the date to days**

**Solution: SELECT empid, empname, TIMESTAMPDIFF(day,hiredate,currentdate) as Experience FROM employee WHERE TO\_DAYS(currentdate) - TO\_DAYS(hiredate) > 1400;**

1. **Exercise on MYSQL Functions**

**ROUND(number, decimals),** **FLOOR(number), CEIL(number), CONCAT(expression1, expression2, expression3,...), UPPER(Text) or UCASE(Text)**

1. Write the sql query to fetch the employee id and employee name and increment the salaries of all employees by 2.8% and display as totalsal from the employee table

**Solution: SELECT empid, empname, sum(salary+salary\*0.028) as totalsal FROM Employee;**

1. Write the sql query to fetch the employee id and employee name and increment the salaries of all employees by 2.8% and display as totalsal and rounded the incremented salary to zero decimals and display as Rtotal from the employee table.

**Solution: SELECT empid, empname , sum(salary+salary\*0.028) as totalsal, ROUND(sum(salary+salary\*0.028), 0) as Rtotal FROM Employee;**

1. Write the sql query to fetch the employee id and employee name and increment the salaries of all employees by 2.8% and display as totalsal and rounded the incremented salary to one decimal and display as Rtotal from the employee table.

**Solution: SELECT empid, empname , sum(salary+salary\*0.028) as totalsal, ROUND(sum(salary+salary\*0.028), 1) as Rtotal FROM Employee;**

1. Write the sql query to increment the salaries of all employees by 2.8% and display as totalsal and find the largest integer value that is less than the total salary of 12000.50 using floor function and display as **Fl\_total**

**Solution: SELECT sum(salary+salary\*0.028) as totalsal, Floor(12000.50) as Fl\_total FROM Employee;**

1. Write the sql query to increment the salaries of all employees by 2.8% and display as totalsal and find the smallest integer value that is greater than or equal to the total salary of 14000.75 using ceil function and display as Cl\_total.

**Solution: SELECT sum(salary+salary\*0.028) as totalsal, CEIL(14000.75) as Cl\_total FROM Employee;**

1. Write the sql query to concatenate student number, name, standing and display as sdetails from the student table.

**Solution: SELECT CONCAT(snum, "-", sname, "-", standing) AS sdetails FROM Student;**

1. Write the sql query to convert the employee names into upper case and store as UFnames

**Solution: SELECT UPPER(empname) AS UFnames FROM employee;**

**OR**

**SELECT UCASE(ename) AS UFnames FROM employee;**