

-1. Create a trigger that will run when someone tries to update records in the salaries table. It will raise an error if the salary is less than 35,000 and higher than 1,40,000. It will do nothing if the salary is within range.

DELIMITER \$\$

CREATE TRIGGER salary_validation

BEFORE UPDATE

ON salaries FOR EACH ROW

BEGIN

declare msg varchar(150);

if new.salary < 35000 OR new.salary > 1400000 THEN

set msg = 'New salary record error: salary cannot be less than \$35,000 or higher than \$1,400,000.';

signal sqlstate '45000' set message_text=msg;

end if;

END \$\$

DELIMITER ;

2. Create a function that will accept the department name and a year as input. Then it will return the number of people

-- worked in that department in the specified year. After you create the function, show how you will use it.

DELIMITER \$\$

CREATE FUNCTION num_employees_by_year(year int, deptName varchar(40))

RETURNS int

DETERMINISTIC

BEGIN

DECLARE total_emp int;

SELECT count(*) INTO total_emp

FROM dept_emp d

JOIN departments de

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ON d.dept_no=de.dept_no
WHERE de.dept_name=deptName
AND year between YEAR(d.from_date) AND year(d.to_date);
return total_emp;
END $$
DELIMITER ;
```

```
-- test
select num_employees_by_year(2000, 'Sales');
```

3. Create a procedure that will return the total salary paid out for a department in a specific year. It will take the department name and the year as input. After that, show how you would call it.

```
DELIMITER $$
CREATE PROCEDURE total_salary_dept(IN year int, IN deptName varchar(40))
BEGIN
    select sum(salaries.salary) as 'Total Salary'
    from salaries s
    join dept_emp de
    on s.emp_no=de.emp_no
    join departments d
    on de.dept_no=d.dept_no
    where d.dept_name=deptName AND year between YEAR(s.from_date) AND YEAR(s.to_date);
END $$
DELIMITER ;

-- call procedure
call total_salary_dept(2000, 'Sales');
```