**Question1**

**1.**

**Select Count(Department.Dep\_Id), Locations.City, Regions. Region\_Name   
FROM Departments,Employee,Locations,Countries,Regions**

**Where Employee.Dep\_Id=Departnment.Dep\_Id**

**AND Department.Location\_Id=Locations.Location\_ID**

**AND Countries.Country\_Id=Locations.Country\_Id**

**AND Regions.Region\_ID=Countries.Region\_Id**

**GROUP BY Department.Dep\_Id**

**Having Count(\*)>500**

**2.**

**Update Employees**

**Set Employees. FirstName=‘Picard’**

**from Employees,Departments,Employee\_History,Jobs**

**WHERE   
Employees.Manager\_Id=Departments.Manager\_Id**

**AND Departments.Dep\_Id=Employee\_History.Dep\_ID**

**AND Employee\_History.Job\_ID=Jobs.Job\_Id**

**WHERE Jobs.Max\_salary>100000**

**3,**

**SELECT YEAR(Joining\_date) as Year, MONTH(Joining\_date) AS month**

**from Employee\_History ,Departments,Locations**

**where Employee\_History.Dep\_ID=Departments.Dep\_ID**

**AND Departments.Location\_ID=Locations.Location\_ID**

**AND Locations.State\_Province='Vancouver'**

**GROUP BY YEAR(Joining\_date) ,MONTH(Joining\_ date)**

**order by count(\*)**

**LIMIT 1**

4.

**SELECT YEAR(Joining\_date) as Year**

**from Employee\_History ,Departments,Locations**

**where Employee\_History.Dep\_ID=Departments.Dep\_ID**

**AND Departments.Location\_ID=Locations.Location\_ID**

**GROUP BY YEAR(Joining\_date)**

**order by count(\*) DESC**

**LIMIT 1**

5.

**SELECT COUNT(\*),MONTH(Joining\_date)**

**from Employee\_History ,Departments,Locations**

**where Employee\_History.Dep\_ID=Departments.Dep\_ID**

**AND Departments.Location\_ID=Locations.Location\_ID**

**AND (Employee\_History.Joining\_date between 'xxxx-01-01' and 'xxxx-12-31')**

**GROUP BY MONTH(Joining\_date)**

**Question2**

6)

DELIMITER $$

CREATE TRIGGER myTrigger

AFTER UPDATE ON Employees

FOR EACH ROW

BEGIN

SELECT B.Salary

INTO manager\_salary

FROM Employees A,Employees B

WHERE A.Manager\_ID=B.Emp\_ID;

SELECT Jobs.Max\_salary

INTO max\_salary

FROM Employees,Jobs

WHERE Employees.Job\_ID=Jobs.Job\_ID;

IF manager\_salary IS NOT NULL THEN

IF NEW.salary>manager\_salary THEN

ROLLBACK;

ELSE

UPDATE Employees

SET salary=new.salary

WHERE EMP\_ID=new.EMP\_ID;

END IF;

ELSE

IF NEW.salary>0.1\*max\_salary THEN

ROLLBACK;

ELSE

UPDATE Employees

SET salary=new.salary

WHERE EMP\_ID=new.EMP\_ID;

END IF;

END IF;

END $$

DELIMITER ;

7.

DELIMITER $$

CREATE TRIGGER myTrigger

AFTER UPDATE ON Employees

FOR EACH ROW

BEGIN

IF NEW.hire\_date IS NOT NULL AND OLD.Job\_ID IS NOT NULL AND OLD.Department\_ID is not null AND NEW.Emp\_ID is not null AND NEW.Hire\_date=CURDATE() AND START\_DATE =ENDDATE THEN

UPDATE Employees

SET Job\_ID=new.Job\_Id, Salary=new.Salary,Hire\_date=new.Hire\_date

WHERE EMP\_ID=new.EMP\_ID;

END IF;

END $$

DELIMITER ;

8.

DELIMITER $$

CREATE TRIGGER myTrigger

AFTER UPDATE ON Employees

FOR EACH ROW

BEGIN

IF OLD.Departments=NEW.Departments THEN

IF NEW.Salary>Old.Salary THEN

UPDATE Employees

SET Salary=new.Salary

WHERE EMP\_ID=new.EMP\_ID;

ELSE

ROLLBACK;

END IF;

END IF;

END $$

DELIMITER ;

9.

10.

DELIMITER $$

CREATE TRIGGER myTrigger

AFTER UPDATE ON Jobs

FOR EACH ROW

BEGIN

IF NEW.Max\_salary>NEW.Min\_Salary THEN

UPDATE Jobs

SET Max\_Salary=new.Salary,Min\_Salary=NEW.Min\_Salary

WHERE EMP\_ID=new.EMP\_ID;

ELSE

ROLLBACK;

END IF;

END $$

DELIMITER ;