**VIEW**

1. *Create view (SSN, Full Name of employee, Project Number, Project Name, Hours) that includes information about employees, projects, and hours for those projects at Houston.*

CREATE VIEW EmployeeProjectHouston AS

SELECT e.SSN,

CONCAT(e.FirstName, ' ', e.LastName) AS FullName,

p.ProjectNumber, p.ProjectName, w.Hours

FROM Employee e

JOIN WorksOn w ON e.SSN = w.EmployeeSSN

JOIN Project p ON w.ProjectNumber = p.ProjectNumber

WHERE p.Location = 'Houston';

1. *Create view (SSN, Full Name of employee, Number of dependent) that includes information about employees who have the number of dependents greater than 2.*

CREATE VIEW EmployeeDependents AS

SELECT e.SSN,

CONCAT(e.FirstName, ' ', e.LastName) AS FullName,

COUNT(d.DependentName) AS NumberOfDependents

FROM Employee e

JOIN Dependent d ON e.SSN = d.EmployeeSSN

GROUP BY e.SSN, e.FirstName, e.LastName

HAVING COUNT(d.DependentName) > 2;

1. *Create view (Full Name of employee, date of birth, gender) for those employees who have their birthdate in July. Make this view as read-only.*

CREATE VIEW EmployeeJulyBirthdate AS

SELECT CONCAT(e.FirstName, ' ', e.LastName) AS FullName,

e.BirthDate,

e.Gender,

FORM Employee e

WHERE

MONTH(e.BirthDate) = 7

WITH CHECK OPTION

**TRIGGER, FUNTION, STORE PROCEDURE, CURSOR**

1. *Employees in the company must be older than 18 years old. Write a trigger to implement this constraint.*

DELIMITER $$

CREATE TRIGGER CheckEmployeeAge

BEFORE INSERT ON Employee

FOR EACH ROW

BEGIN

IF TIMESTAMPDIFF(YEAR, NEW.BirthDate, CURDATE()) < 18 THEN

SIGNAL SQLSTATE '45000'

SET MESSAGE\_TEXT = 'Employee must be at least 18 years old.';

END IF;

END$$

DELIMITER ;

1. *Write a function that returns the total number of projects when given an employee’s ID.*

*Input: employee*

*ID Output: total number of projects*

DELIMITER $$

CREATE FUNCTION GetTotalProjects(empID INT)

RETURNS INT

DETERMINISTIC

BEGIN

DECLARE totalProjects INT;

SELECT COUNT(\*) INTO totalProjects

FROM WorksOn

WHERE EmployeeSSN = empID;

RETURN totalProjects;

END$$

DELIMITER ;

1. *Create a store procedure that prints SSN, Full name of employee, Department name, and annual salary.*

DELIMITER $$

CREATE PROCEDURE PrintEmployeeInfo()

BEGIN

SELECT e.SSN,

CONCAT(e.FirstName, ' ', e.LastName) AS FullName,

d.DepartmentName, (e.Salary \* 12) AS AnnualSalary

FROM Employee e

JOIN Department d ON e.DepartmentID = d.DepartmentID;

END$$

DELIMITER ;