**TASK COMPLETION REPORT:**

I have successfully completed the User Story assigned to me i.e given below

**Q1. What is the turnover rate per manager**

**Step 1: Create HR database**

First, I created the database named `HR` and used it.

Sql query :

# SQL HR Project

CREATE DATABASE HR;

USE HR;

**Step 1: Create the Managers Table:**

**CREATE TABLE Managers (**

**manager\_id INT PRIMARY KEY,**

**manager\_name VARCHAR(100),**

**total\_employees INT,**

**employees\_left INT**

**);**

**Step 2: Insert Data into the Managers Table:**

**INSERT INTO Managers (manager\_id, manager\_name, total\_employees, employees\_left)**

**VALUES**

**(1, ‘Rohit Sharma', 15, 3),**

**(2, 'Priya Singh', 12, 1),**

**(3, ‘Anjali Verma', 20, 5),**

**(4,'Sandeep Patel’, 18, 2),**

**(5, ‘Kavita Nair', 25, 4),**

**(6, 'Vikram Mehta’, 10, 1),**

**(7, ‘Neha Gupta', 30, 6),**

**(8, ‘Amitabh Rao’, 22, 3),**

**(9, ‘Ritu Jain’, 14,2 ),**

**(10, ‘Sunil Desai’, 16,4 ),**

**(11, ‘Pooja joshi ’,28,7),**

**(12, ‘Rajesh Kumar’,19 ,3 ),**

**(13, ‘Deepika Rao’, 13, 0),**

**(14, ‘Vivek Kapoor’,21, 5),**

**(15, ‘Meena Iyer’, 27,8),**

**(16, ‘Arjun Das’ , 24,2),**

**(17, ‘Smita Roy’ , 29,4),**

**(18, ‘Karan Thakur’ , 11,1),**

**(19, ‘Rekha Shukla’ , 26, 3),**

**(20, ‘Manoj Agarwal’, 17 ,6 );**

**# step3 : Calculate the Turnover Rate .**

**The turnover rate is calculated as the percentage of employees who left (employees\_left) out of the total number of employees (total\_employees).**

**#first add the turnover\_rate column**

**ALTER TABLE Managers ADD turnover\_rate DECIMAL(5, 2);**

**#step4: Then, calculate and update the turnover rate for each manager:**

**UPDATE Managers**

**SET turnover\_rate = (employees\_left \* 100.0 / total\_employees);**

**#step5: Result Query to View the Data**

**SELECT \* FROM Managers;**

**#OUTPUT:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | manager\_id | manager\_name | total\_employees | employees\_left | turnover\_rate | | 1 | **Rohit Sharma** | 15 | 3 | 20 | | 2 | **Priya Singh** | 12 | 1 | 8.33 | | 3 | **Anjali Verma** | 20 | 5 | 25 | | 4 | **Sandeep Patel** | 18 | 2 | 11.11 | | 5 | **Kavita Nair** | 25 | 4 | 16 | | 6 | **Vikram Mehta** | 10 | 1 | 10 | | 7 | **Neha Gupta** | 30 | 6 | 20 | | 8 | **Amitabh Rao** | 22 | 3 | 13.64 | | 9 | **Ritu Jain** | 14 | 2 | 14.29 | | 10 | **Sunil Desai** | 16 | 4 | 25 | | 11 | **Pooja Joshi** | 28 | 7 | 25 | | 12 | **Rajesh Kumar** | 19 | 3 | 15.79 | | 13 | **Deepika Rao** | 13 | 0 | 0 | | 14 | **Vivek Kapoor** | 21 | 5 | 23.81 | | 15 | **Meena Iyer** | 27 | 8 | 29.63 | | 16 | **Arjun Das** | 24 | 2 | 8.33 | | 17 | **Smita Roy** | 29 | 4 | 13.79 | | 18 | **Karan Thakur** | 11 | 1 | 9.09 | | 19 | **Rekha Shukla** | 26 | 3 | 11.54 | | 20 | **Manoj Agarwal** | 17 | 6 | 35.29 | |  |  |  |  |
|  |  |  |  |  |
| **Q2. Create a view Update employees with a salary of zero with the average salary in the job ID**  **# Step1: Create the Employees Table**  **-- Create the employees table**  **CREATE TABLE employees (**  **employee\_id INT PRIMARY KEY,**  **first\_name VARCHAR(50),**  **last\_name VARCHAR(50),**  **job\_id VARCHAR(10),**  **salary DECIMAL(10, 2)**  **);**  **#Step2: Insert Data into the Employees Table**  **INSERT INTO employees (employee\_id, first\_name, last\_name, job\_id, salary)**  **VALUES**  **(101, 'John', 'Doe', 'Sales, 75000.00),**  **(102, 'Jane', 'Smith', 'Marketing', 65000.00),**  **(103, 'Michael ', 'Johnson', 'Finance', 70000.00),**  **(104, 'Patricia Williams', 'Brown', 'Human Resource', 72000.00),**  **(105, 'Robert ', 'Brown', ‘Engineering', 68000.00),**  **(106, 'Linda', 'Jones', ‘Customer\_Support', 0),**  **(107, 'William', 'Garcia', ‘Legal', 71000.00),**  **(108, 'Elizabeth', 'Martinez', Operations', 75000.00),**  **(109, 'David', 'Hernandez', 'IT',67000.00),**  **(110, 'Barbara', 'Lopez', ‘Administration', 0),**  **(111, 'Richard', 'Gonzalez', ‘Research and Development', 74000.00),**  **(112, 'Susa', 'wilson', ‘Procurement', 73000.00),**  **(113, 'Joseph', 'Anderson', ‘Quality Assurance', 72000.00),**  **(114, 'Margaret ', 'Thomas', Product development', 0),**  **(115, 'Charles', 'Taylor', ‘Public Relations', 70000.00),**  **(116, 'Jessica', 'Moore', ‘Training', 78000.00),**  **(117, 'Christopher', 'Jackson', Logistics', 74000.00),**  **(118, 'Karen', 'Martin', ‘Project Management', 73000.00),**  **(119, 'Matthew', 'Lee', ‘Facilities management ', 71000.00),**  **(120, 'Ashley', 'Perez', ‘Corporate Strategy', 72000.00);**  **#Step 3: Retrieve all data from employees table with their 0 salaries**  **select \* from employees;**  **Output:**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | employee\_id | first\_name | last\_name | job\_id | salary | | 101 | John | Doe | Sales | 75000 | | 102 | Jane | Smith | Marketing | 65000 | | 103 | Michael | Johnson | Finance | 70000 | | 104 | Patricia | Williams | Human Resource | 72000 | | 105 | Robert | Brown | Engineering | 68000 | | 106 | Linda | Jones | Customer support | 0 | | 107 | william | Garcia | Legal | 71000 | | 108 | Elizabeth | Martinez | Operations | 75000 | | 109 | David | Hernandez | IT | 67000 | | 110 | Barbara | Lopez | Administration | 0 | | 111 | Richard | Gonzalez | Research and Development | 74000 | | 112 | Susa | Wilson | Procurement | 73000 | | 113 | Joseph | Anderson | Quality Assurance | 72000 | | 114 | Margaret | Thomas | Product Development | 0 | | 115 | Charles | Taylor | Public Relations | 70000 | | 116 | Jessica | Moore | Training | 78000 | | 117 | Christopher | Jackson | Logistics | 74000 | | 118 | Karen | Martin | Project Management | 73000 | | 119 | Matthew | Lee | Facilities Management | 71000 | | 120 | Ashley | Perez | Corporate Strategy | 72000 |   **#Step 4: Create a view to update employees with zero salary**  **CREATE VIEW update\_zero\_salary\_employees AS**  **SELECT**  **e.employee\_id,**  **e.first\_name,**  **e.last\_name,**  **e.job\_id,**  **CASE**  **WHEN e.salary = 0 THEN avg\_salary.avg\_job\_salary**  **ELSE e.salary**  **END AS updated\_salary**  **FROM**  **employees e**  **JOIN**  **(SELECT job\_id, AVG(salary) as avg\_job\_salary**  **FROM employees**  **WHERE salary > 0**  **GROUP BY job\_id) avg\_salary**  **ON**  **e.job\_id = avg\_salary.job\_id;**  **#Step5: Query to show the updated Zero salaries of employees after creating view**  **SELECT \* FROM update\_zero\_salary\_employees;**  **Output: we can see salaries of employee ids 106,110 and 114 are Updated**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | employee\_id | first\_name | last\_name | job\_id | updated\_salary | | 101 | John | Doe | Sales | 75000 | | 102 | Jane | Smith | Marketing | 65000 | | 103 | Michael | Johnson | Finance | 70000 | | 104 | Patricia | Williams | Human Resource | 72000 | | 105 | Robert | Brown | Engineering | 68000 | | 106 | Linda | Jones | Customer support | 69000 | | 107 | william | Garcia | Legal | 71000 | | 108 | Elizabeth | Martinez | Operations | 75000 | | 109 | David | Hernandez | IT | 67000 | | 110 | Barbara | Lopez | Administration | 76000 | | 111 | Richard | Gonzalez | Research and Development | 74000 | | 112 | Susa | Wilson | Procurement | 73000 | | 113 | Joseph | Anderson | Quality Assurance | 72000 | | 114 | Margaret | Thomas | Product Development | 71000 | | 115 | Charles | Taylor | Public Relations | 70000 | | 116 | Jessica | Moore | Training | 78000 | | 117 | Christopher | Jackson | Logistics | 74000 | | 118 | Karen | Martin | Project Management | 73000 | | 119 | Matthew | Lee | Facilities Management | 71000 | | 120 | Ashley | Perez | Corporate Strategy | 72000 | |  |  |  |  |