

----- Lab Experiment 03: Implementation of different types of SQL functions. -----

STUDENT NAME: -- USN: -- SECTION: --

----- SELECT USER(), @@hostname AS Host\_Name, VERSION() AS MySQL\_Version, NOW() AS Current\_Date\_Time; -- output -- 'root@localhost', 'DESKTOP-EI7LSTM', '8.0.42', '2025-10-17 22:55:25' -- Paste the Output below by execution of above command --

----- PreCoded Relational Schema and Instance.

----- CREATE TABLE Employees ( EmployeeID INT PRIMARY KEY AUTO\_INCREMENT, FirstName VARCHAR(50), LastName VARCHAR(50), Salary DECIMAL(10, 2), BirthDate DATE, HireDate DATE ); -- output -- 22:56:27 CREATE TABLE Employees ( EmployeeID INT PRIMARY KEY AUTO\_INCREMENT, FirstName VARCHAR(50), LastName VARCHAR(50), Salary DECIMAL(10, 2), BirthDate DATE, HireDate DATE ) 0 row(s) affected 0.047 sec INSERT INTO Employees (FirstName, LastName, Salary, BirthDate, HireDate) VALUES ('John', 'Doe', 55000.30, '1985-06-15', '2010-01-20'), ('Jane', 'Smith', 65000.50, '1990-08-22', '2012-07-10'), ('Alice', 'Johnson', 72000.10, '1982-11-30', '2015-05-25'), ('Bob', 'Brown', 48000.90, '1978-03-12', '2018-09-15'); -- output -- 22:56:58 INSERT INTO Employees (FirstName, LastName, Salary, BirthDate, HireDate) VALUES ('John', 'Doe', 55000.30, '1985-06-15', '2010-01-20'), ('Jane', 'Smith', 65000.50, '1990-08-22', '2012-07-10'), ('Alice', 'Johnson', 72000.10, '1982-11-30', '2015-05-25'), ('Bob', 'Brown', 48000.90, '1978-03-12', '2018-09-15') 4 row(s) affected Records: 4 Duplicates: 0 Warnings: 0 0.016 sec CREATE TABLE Orders ( OrderID INT PRIMARY KEY AUTO\_INCREMENT, OrderDate DATE, TotalAmount DECIMAL(10, 2), EmployeeID INT, FOREIGN KEY (EmployeeID) REFERENCES Employees(EmployeeID) ); INSERT INTO Orders (OrderDate, TotalAmount, EmployeeID) VALUES ('2024-07-15', 250.00, 1), ('2024-08-10', 175.50, 2), ('2024-09-01', 300.00, 3), ('2024-09-10', 450.75, 1), ('2024-08-25', 123.40, 4); -- output -- 22:59:22 INSERT INTO Orders (OrderDate, TotalAmount, EmployeeID) VALUES ('2024-07-15', 250.00, 1), ('2024-08-10', 175.50, 2), ('2024-09-01', 300.00, 3), ('2024-09-10', 450.75, 1), ('2024-08-25', 123.40, 4) 5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0 0.016 sec --

----- Print the Information of the Employee and Order Table. [ Hint: SELECT \* FROM TABLENAME ] -- Write the SQL Query below this line. -- Output: --

----- Number Functions Section -- /\* a. Round Salaries: Round employee salaries to nearest integer \*/ -- Output: /\* b. Absolute Values: Show absolute values of salaries \*/ -- Output: /\* c. Ceiling Values: Get ceiling values of order amounts \*/ -- Output: --

----- Aggregate Functions Section -- /\* a. Count of Employees: Find total number of employees \*/ -- Output: /\* b. Sum of Salaries: Calculate total salary expense \*/ -- Output: /\* c. Average Order Amount: Find average order value \*/ -- Output: /\* d. Max/Min Salary: Find highest and lowest salaries \*/ -- Output: --

----- Character Functions Section -- /\* a. Case Conversion: Show names in uppercase and lowercase \*/ -- Output: /\* b. Concatenate Names: Create full names \*/ -- Output: /\* c. Extract Substring: Get first 3 characters of first names \*/ -- Output: --

----- Conversion Functions Section -- /\* Convert String to Date: Convert text to DATE type \*/ -- Output: --

----- Date Functions Section -- /\* a. Current Date/Time: Get current timestamp \*/ -- Output: /\* b. Extract Year: Get year from order dates \*/ -- Output: /\* c. Add Months: Add 3 months to order dates \*/ -- Output: /\* d. Days Since Order: Calculate days between order date and now \*/ -- Output: -- END of the Task --