

Assessment: MySQL Database – Employee Management System

Objective

Design and implement MySQL-based employee management system using a database, table and stored procedure.

SECTION 1: Database & Table Design

Task 1:

Create a new MySQL database named 'empdb'.

Task 2:

Within 'empdb', create a table named 'empmaster' with the following schema:

- ID – Integer (Primary Key)
- empname – Text
- empemail – Text
- dept – Text
- age – Integer

SECTION 2: Data Population

Task 3:

Insert the following employee records into the 'empmaster' table:

1. David, david@gmail.com, Finance, 40
2. Archie, archie@gmail.com, HR, 30
3. Betty, betty@gmail.com, IT, 25

SECTION 3: Stored Procedure

Task 4:

Create a stored procedure named 'GetEmployeesWithBonusAboveAge' that:

- Accepts an input parameter: age
- Returns all employees whose age is greater than the input
- Includes a calculated column named 'bonus' using the formula: $\text{bonus} = \text{age} * 2500$

Task 5:

Test the stored procedure manually using SQL commands to verify expected outputs.

Launching MySQL Console:

1. To open the command terminal the test takers need to go to the Application menu
2. (Three horizontal lines at left top) -> Terminal -> New Terminal.
3. To login to mysql instance: Open new terminal and use following command:
 - a. **sudo systemctl enable mysql**
 - b. **sudo systemctl start mysql**

NOTE: After typing any of the above commands you might encounter any warnings.
>> Please note that this warning is expected and can be disregarded. Proceed to the next step.

- c. **mysql -u root -p**
The last command will ask for password which is 'pass@word1'

Running Test Cases:

1. Launch another instance of Terminal
2. Run command: **mvn test**
3. You can run this command any number of times to test the status of your activities.
4. Make sure before final submission, you must run test and then submit