

Self-Evaluation Checklist

Criteria	Self-Rating (✓/✗)	Notes
Database schema follows 3NF normalization	✓	Each table has a single primary key, no repeating groups, all non-key attributes depend only on the primary key. Separate tables for Department, Employee, Project, Performance, and Reward eliminate redundancy.
Proper use of primary, foreign keys, and indexes	✓	All tables have primary keys defined. Foreign keys established with ON DELETE CASCADE/SET NULL. Indexes created on EmpName and DeptID as required.
Data inserted and manipulated using DML commands	✓	5+ records inserted in each table using INSERT. UPDATE used to change employee department. DELETE used to remove rewards < 1000.
Used aggregate functions and date operations correctly	✓	AVG() for average ratings, SUM() for total rewards, TIMESTAMPDIFF() to calculate age, YEAR() and CURDATE() for date filtering.
Queries optimized using EXPLAIN and indexes	✓	EXPLAIN command used to analyze query execution before and after optimization. Indexes on EmpName and DeptID improve lookup performance.
Used JOINS and Subqueries effectively	✓	INNER JOIN used to combine multiple tables. Subqueries with NOT IN and MAX() for finding highest-rated employees and employees without rewards.
Demonstrated transaction control (commit/rollback)	✓	START TRANSACTION, COMMIT demonstrated with new employee insertion. ROLLBACK example included (commented) for testing.
Script executes without syntax errors	✓	Complete working script tested with proper SQL syntax. All statements properly terminated with semicolons. DELIMITER used correctly for stored procedure.