



SQL BASICS

Training Assignments

Program Code	BSQL
Version	3.1
Effective Date	01/11/2016

Hanoi, 11/2016


RECORD OF CHANGES

*A - Added M - Modified D - Deleted

Date	Changes	A* M, D	Contents	Version
14-Oct-2016	Create	A	Add the new assignments.	v1.0
14-Oct-2018	Update	M	Template.	v1.1
01-Jun-2019	Update	M	Update Objective	v1.2

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	CODE:	BSQL_Assignment2_Opt2
	TYPE:	n/a
	LOC:	n/a
	DURATION:	180 MINUTES

For the following assignments:

- Print out respectively the screenshots to show the query results.
- Pack **screenshots** and **SQL scripts** or **your answers** into the zip file named BSQL_Assignment<i>_AccountName.zip (for instance: BSQL_Assignment1_NamNT.zip) then handle to the evaluator via email (XYZ@fsoft.com.vn) or follow the guidance of the class admin.

Day 2. Lesson 2: SQL Basic

Assignment 2_Opt2: Fresher Training Management

Barem: Each sub-question is 10%.

Objective: H5SD - SQL skills

Problem Description:

In the database design for the Employee Management System of FSOFT Company, given tables of the application with below:

EMPLOYEE:

- EmpNo: employee code, primary key.
- EmpName: employee name.
- BirthDay: birth day of the employee.
- DeptNo: department code of the employee.
- MgrNo: manager code, not null.
- StartDate: starting date of work.
- Salary: salary of the employee, data type is money (VND).
- Level: level of the employee (accepts value range from 1 to 7 only).
- Status: status of the employee (0: working, 1: unpaid leave, 2: out)
- Note: some note about employee, free text.

EMP_SKILL:

- SkillNo: skill code, foreign key.
 - EmpNo: employee code, foreign key.
 - SkillLevel: skill level of the employee (accepts value range from 1 to 3 only).
 - RegDate: registration date.
 - Description: skill description, free text.
- Primary key (SkillNo, EmpNo)

SKILL:

- SkillNo: skill code, primary key, auto increment.

- SkillName: name of skill.
- Note: some note about skill, free text.

DEPARTMENT:

- DeptNo: department code, primary key, auto increment.
- DeptName: department name.
- Note: some note about department, free text.

Questions to answer:**Q1:**

- a. Create EMPLOYEE table with the most appropriate/economic field/column constraints & types. All fields are mandatory except Note field.
- b. Create SKILL table with the most appropriate/economic field/column constraints & types, all fields are mandatory except Note field.
- c. Create DEPARTMENT table with the most appropriate/economic field/column constraints & types, all fields are mandatory except Note field.
- d. Create EMP_SKILL table with the most appropriate/economic field/column constraints & types, all fields are mandatory except Description field.

Q2:

- a. Add an Email field to EMPLOYEE table and make sure that the database will not allow the value for Email to be inserted into a new row if that value has already been used in another row.
- b. Modify EMPLOYEE table to set default values to 0 of MgrNo and Status fields.

Q3:

- a. Add the FOREIGN KEY constrain of DeptNo field to the EMPLOYEE table that will relate the DEPARTMENT table.
- b. Remove the Description field from the EMP_SKILL table.

Q4:

- a. Add at least 5 records into each the created tables.
- b. Create a VIEW called EMPLOYEE_TRACKING that will appear to the user as EmpNo, Emp_Name and Level. It has Level satisfied the criteria: Level >=3 and Level <= 5.

Estimated Time to complete:180 mins.

-- THE END --