

*SQL Essential*

Training Assignments

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| Program Code | SQLE |
| Version | 3.1 |
| Effective Date | 01/11/2016 |

**Hanoi, 11/2016**

RECORD OF CHANGES

\*A - Added M - Modified D - Deleted

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| --- | --- | --- | --- | --- |
| 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: 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 Assignment<i>\_AccountName.zip (for instance: Assignment1\_NamNT.zip) then handle to the evaluator via email ([XYZ@fsoft.com.vn](mailto:XYZ@fsoft.com.vn) ) or follow the guidance of the class admin.

# 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:**

1. Create EMPLOYEE table with the most appropriate/economic field/column constraints & types. All fields are mandatory except Note field.
2. Create SKILL table with the most appropriate/economic field/column constraints & types, all fields are mandatory except Note field.
3. Create DEPARTMENT table with the most appropriate/economic field/column constraints & types, all fields are mandatory except Note field.
4. Create EMP\_SKILL table with the most appropriate/economic field/column constraints & types, all fields are mandatory except Description field.

**Q2:**

1. 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.
2. Modify EMPLOYEE table to set default values to 0 of MgrNo and Status fields.

**Q3**:

1. Add the FOREIGN KEY constrain of DeptNo field to the EMPLOYEE table that will relate the DEPARTMENT table.
2. Remove the Description field from the EMP\_SKILL table.

**Q4**:

1. Add at least 5 records into each the created tables.
2. 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 --**