

*Advanced SQL*

Training Assignments

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| Program Code | ASQL |
| 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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Contents

[For the following assignments: 4](#_Toc17270965)

[Day 1. Unit 1: Advanced DML Statements 4](#_Toc17270966)

[Assignment 1\_Opt4: Department Management 4](#_Toc17270967)

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|  | **CODE: ASQL\_Assignment1\_Opt4**  **TYPE: Medium**  **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 ASQL\_Assignment1\_AccountName.zip (for instance: ASQL\_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.

# Day 1. Unit 1: Advanced DML Statements

## Assignment 1\_Opt4: Department Management

**Barems**: Qa – f: 10%, Qg,h – 20%%

**Objectives**: H5SD - SQL skills

**Problem Descriptions**:

Login SQL Server and create database name DMS, run below script to generate tables:

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1. Add at least 8 records into each created tables.
2. Find employees who are currently working on a project or projects. Employees working on projects will have a row(s) on the EMPPROJACT table.
3. Find all employees who major in math (MAT) and computer science (CSI).
4. Find employees who work on all activities between 90 and 110
5. Provide a report of employees with employee detail information along with department aggregate information. Give >=2 solutions (Scalar Fullselect, Join, CTE, ect). Show:

EMPNO LASTNAME FIRSTNAME SALARY DEPTNO DEPT\_AVG\_SAL

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000010 HAAS CHRISTINE 52750.00 A00 45312.50

1. Use CTE technique to provide a report of *employees whose education levels* are higher than the *average education level of their respective department*.
2. Return the department number, department name and the total payroll for the department that has the highest payroll. Payroll will be defined as the sum of all salaries and bonuses for the department.
3. Return the employees with the top 5 salaries.

* Could be 5 employees with different salaries.
* Could be many employees having the same salaries.

**-- THE END --**