

*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](#_Toc23326801)

[Day 2. Unit 2: Common Database Objects 4](#_Toc23326802)

[Assignment 2\_Opt3: AdventureWork 4](#_Toc23326803)

[**Problem 1**: User Defined Function (UDF) 4](#_Toc23326804)

[**Problem 2**: Stored Procedure 4](#_Toc23326805)

[**Problem 3**: Triggers 4](#_Toc23326806)

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|  | **CODE: ASQL\_Assignment2\_Opt3**  **TYPE: Long**  **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\_Assignment2\_AccountName.zip (for instance: ASQL\_Assignment2\_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 2. Unit 2: Common Database Objects

## Assignment 2\_Opt3: AdventureWork

**Barems**: problem 1 - 35%, problem - 25%, problem 3 - 40%

**Objectives**: H5SD - SQL skills

### **Problem 1**: User Defined Function (UDF)

In the AdventureWorks2008 database or up

1. Writes an UDF returns ProductID, Name, ProductNumber, Color and ListPrice for products that have 'CA' in the ProductNumber and Color is 'black'
2. Writes an inline table UDF that accept an integer parameter named BusinessEntityID and returns the associated address of a business entity.

### **Problem 2**: Stored Procedure

In the AdventureWorks2008 database or up, writes a stored proc meet below requirements:

* Accept 2 parameters: @ModifiedDate (datetime) and @UpperFlag (bit)
* Returns FirstName from Person.Person table if ModifedDate is greater than @ModifiedDate, FirstName will be uppercase if @UpperFlag is true.

### **Problem 3**: Triggers

This exercise perforns in AdventureWorks2008 database or up.

1. In the AdventureWorks2008 database, create an audit table of **Production.ProductInventory** table name **Production.ProductInventoryAudit** as below:

**CREATE TABLE Production.ProductInventoryAudit (**

**ProductID INT NOT NULL,**

**LocationID SMALLINT NOT NULL,**

**Shelf NVARCHAR(10) NOT NULL,**

**Bin TINYINT NOT NULL,**

**Quantity SMALLINT NOT NULL,**

**rowguid UNIQUEIDENTIFIER NOT NULL,**

**ModifiedDate DATETIME NOT NULL,**

**InsertOrDelete CHAR(1) NOT NULL**

**)**

1. Writes a trigger to ensure that each time user insert or delete records from Production.ProductInventory then these records will be captured in Production.ProductInventoryAudit table.

In insert case, InsertOrDelete column in Production.ProductInventoryAudit is "I", in delete case, this column must be "D".

**-- THE END --**