 

Lab 3 is intended to develop the ability to code synthetic transactions as well as backup and restore databases. Please follow the steps below:

1. Connect to IS-HAY04.iSchool.uw.edu
2. Execute the following code substituting your NETID in place of yourNetID (highlighted):

RESTORE DATABASE Lab3\_445\_yourNetID FROM DISK = 'C:\SQL\Lab3\_445\_Template.bak'

WITH

MOVE 'Lab3\_445' TO 'C:\SQL\Lab3\_445\_yourNetID.mdf',

MOVE 'Lab3\_445\_log' TO 'C:\SQL\Lab3\_445\_yourNetID.ldf', RECOVERY, STATS

1. Based on the following defined stored procedure uspInsertOrder create a synthetic transaction ‘wrapper’ to execute a specified number of times when passed a parameter value.

CREATE PROCEDURE uspInsertOrder

@Fname varchar(60),

@Lname varchar(60),

@DOB Date,

@C\_Zip varchar(25),

@Product varchar(100),

@Qty numeric(5,0),

@OrderDate Date

AS

DECLARE @PID INT

DECLARE @CID INT

IF @OrderDate IS NULL

BEGIN

SET @OrderDate = (SELECT GetDate())

END

EXEC uspGetProdID

@P\_Name = @Product,

@P\_ID = @PID OUTPUT

EXEC uspGetCustID

@First = @Fname,

@Last = @Lname,

@Birth = @DOB,

@Zip = @C\_Zip,

@CustID = @CID OUTPUT

IF @CID IS NULL

BEGIN

PRINT '@CID IS NULL and will fail on insert statement; process terminated'

RAISERROR ('CustomerID variable @CID cannot be NULL', 11,1)

RETURN

END

IF @PID IS NULL

BEGIN

PRINT '@PID IS NULL and will fail on insert statement; process terminated'

RAISERROR ('ProductID variable @PID cannot be NULL', 11,1)

RETURN

END

BEGIN TRAN G1

INSERT INTO tblORDER (OrderDate, CustomerID, ProductID, Quantity)

VALUES (@OrderDate, @CID, @PID, @Qty)

IF @@ERROR <> 0

ROLLBACK TRAN G1

ELSE

COMMIT TRAN G1

1. After writing the wrapper stored procedure around uspInsertOrder, take a full backup by issuing the following code:

BACKUP DATABASE Lab3\_445\_yourNetID TO DISK = 'C:\SQL\Lab3\_445\_yourNetID.bak'

1. Issue the code to Execute the wrapper stored procedure 1000 times (this should be a parameter value and not executed by hand 1000 times!!!!)
2. Take a DIFFERENTIAL backup of your lab 3 database by issuing the following code:

BACKUP DATABASE Lab3\_445\_yourNetID TO DISK = 'C:\SQL\Lab3\_445\_yourNetID.bak'

WITH DIFFERENTIAL

1. Take a transaction log backup of your database by issuing the following code:

BACKUP LOG Lab3\_445\_yourNetID TO DISK = 'C:\SQL\Lab3\_445\_yourNetID.bak'

1. Alternate executing the wrapper/synthetic transaction with a number of executions under 100 and taking LOG or DIFFERENTIAL backups (~5 times)
2. DELETE your database by executing the following code:

DROP DATABASE Lab3\_445\_yourNetID

1. Execute the following code to observe the roster of all database backups taken:

RESTORE HEADERONLY FROM DISK = 'C:\SQL\Lab3\_445\_yourNetID.bak'

1. Restore your database to a point-in-time specified during lab!!

