Course: IST-659

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Homework #9

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Topic: Lab08 – Database Security

## Part 1 – Securing Data Objects

## Setup

Not applicable since this is the SQL server setup via the remote lab.

## Creating a database user

-- Lab 9 - Security --

CREATE USER guestuser FOR LOGIN guestuser

## Creating queries from the guestuser’s tab

**In guestuser’s tab, code and execute the EXEC statement to add a user login for the user with UserName ‘TheDoctor’ with a login from ‘Gallifrey’.**

The statement:

-- Create a user 'TheDoctor' for login 'Gallifery'

CREATE USER TheDoctor FOR LOGIN Gallifrey

Failed with error:

Msg 15247, Level 16, State 1, Line 7

User does not have permission to perform this action.

**Also, in guestuser’s tab, code and execute the EXEC statement to finish the VidCast titled ‘Rock Your Way To Success’. You may have to do some SQL in your tab to find what you need for this.**

**In your tab, code and execute a SELECT statement to retrieve all rows from the vc\_UserLogin table. Paste a screenshot of the results in your answers doc.**

**In your tab, code and execute a SELECT statement to retrieve ONLY the vc\_VidCast record that should have been modified by guestuser’s stored procedure call. Paste a screenshot of the results in your answers doc.**

**Copy and paste the code from both your tab and guestuser’s tab to your answers doc.**

-- Grant permissions for guestuser to access vc\_VidCastID table

DECLARE @vidcastid int

SELECT @vidcastid=vc\_VidCastID

FROM vc\_VidCast

WHERE VidCastTitle = 'Rock Your Way To Success'

-- Grant permission to guestuser to EXEC stored procedure

EXEC vc\_FinishVidCast @vidcastid

-- Add an entry using the stored procedure vc\_AddUserLogin

DECLARE @user varchar(10)

SET @user = 'tardy'

DECLARE @loc varchar(20)

SET @loc = 'localhost'

EXEC vc\_AddUserLogin @user, @loc

A screenshot of a social media post

Description automatically generated

**Fig: vc\_UserLogin after insert from guestuser**

**A screenshot of a social media post

Description automatically generated**

**Fig: vc\_VidCast is update from guestuser**

### Part-2: Data Integrity Through Transactions

A screenshot of a cell phone

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**Fig: Inserting data to demonstrate ACID**

**Also, in your own words, explain the reason the first execution failed, but the second did not. Was there anything that happened that you didn’t expect?**

Since we had already inserted values (One, Two and Three) and had a unique constraint on column lab\_testText insert of values ‘One’ had failed.

On changing this to a unique value ‘Sripada’ the insert was successful. However, noticed that lab\_TestID got a value 5 (lab\_TestID is int identity) which means we burnt a lab\_TestID without really adding a row to table lab\_Test. Ideally, we should be rolling back that too.