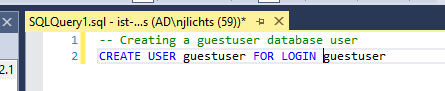
Nicholas Lichtsinn

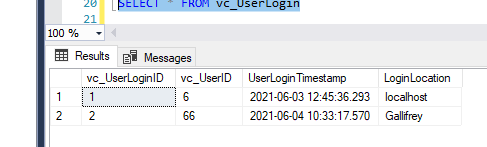
Lab 9

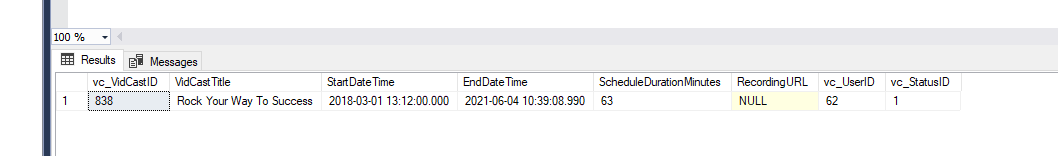
6/4/2021

Part 1 - Securing Data Objects

1. Create GuestUser



1. All rows from user login table
2. vc\_VidCast record that was modified by guest user



**GuestUser Code:**

SELECT \* FROM vc\_User

SELECT \* FROM vc\_MostProlificUsers

EXEC vc\_AddUserLogin 'TheDoctor', 'Gallifrey'

EXEC vc\_FinishVidCast '838'

**My Code:**

-- Creating a guestuser database user

CREATE USER guestuser FOR LOGIN guestuser

-- Grant read permission on the user table

GRANT SELECT ON vc\_User TO guestuser

-- Revoke select permission

REVOKE SELECT ON vc\_User to guestuser

-- Grant view permission

GRANT SELECT ON vc\_MostProlificUsers to guestuser

-- allow guestuser to run some stored procedures

GRANT EXECUTE ON vc\_AddUserLogin TO guestuser

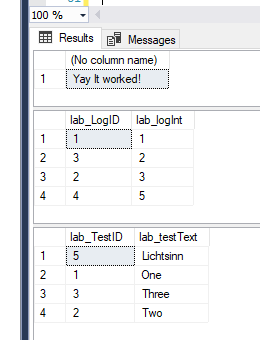
GRANT EXECUTE ON vc\_FinishVidCast TO guestuser

SELECT vc\_VidCastID FROM vc\_VidCast WHERE VidCastTitle = 'Rock Your Way To Success'

SELECT \* FROM vc\_UserLogin

SELECT \* FROM vc\_VidCast WHERE VidCastTitle = 'Rock Your Way To Success'

Part 2 - Data Integrity Through Transactions

1. Transaction
2. The reason the first attempt failed was because we tried to insert a value into the table that was already there and we made the column ‘unique’ so entering in that value didn’t work with the parameters of our database so the transaction failed. In the second attempt the value ‘Lichtsinn’ was not already present so it worked.
3. I did not expect the lab\_testID for the second attempt to be 5 but I guess that is because it added a surrogate ID for the first attempt as well before it failed?

SQL Code:

-- Part 2

CREATE TABLE lab\_Test (

lab\_TestID int identity primary key

, lab\_testText varchar(20) unique not null

)

CREATE TABLE lab\_Log (

lab\_LogID int identity primary key

, lab\_logInt int unique not null

)

INSERT INTO lab\_Test (lab\_testText) VALUES ('One'), ('Two'), ('Three')

INSERT INTO lab\_Log (lab\_logInt) SELECT lab\_TestID FROM lab\_Test

-- step1 begin transaction

BEGIN TRANSACTION

DECLARE @rc int

SET @rc = @@ROWCOUNT

INSERT INTO lab\_Test (lab\_testText) VALUES ('Lichtsinn')

IF(@rc = @@ROWCOUNT)

BEGIN

SELECT 'Bail out! It Failed!'

ROLLBACK

END

ELSE

BEGIN

SELECT 'Yay It worked!'

INSERT INTO lab\_Log (lab\_logInt) VALUES (SCOPE\_IDENTITY())

COMMIT

END

SELECT \* FROM lab\_Log

SELECT \* FROM lab\_Test