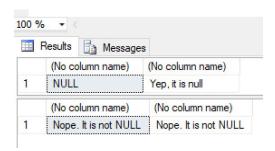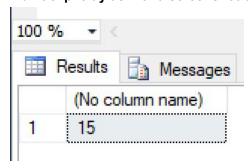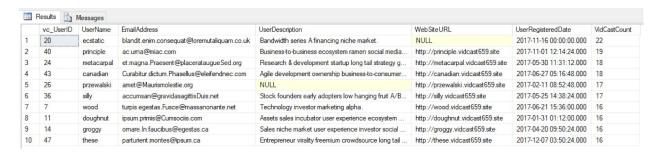Kendra Osburn
December 1, 2018
Lab 08

Didn't explicitly ask for a screenshot of this next one but including it just in case:

Describe what lines 49 - 53 are actually doing:
It's running the function we just created on lines 30 - 47 (named vc_VidCastCount, accepting @userID as parameters). Specifically, it's running the function 10 times, and then ordering by count of VidCasts.

How does the code know that @userID 20 has 22 vidcasts?
On line 51 in our SELECT statement, we are running the function we created on lines 30 - 47 with vc_UserID as the @userID parameter. So we are inputting @userID 20 into our function which then, when run, counts the number of times that user ID is found in the vc_VidCast database.

Describe what lines 75 and 76 actually do.

They run the function we created on line 57 with the inputs 'Music' and 'Tunes'. Specifically, on line 66, the function runs a SELECT statement which selects the tagID from our vc_Tag db where the TagText = our input, in this case 'Music' or 'Tunes'.
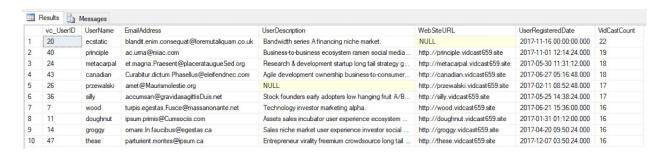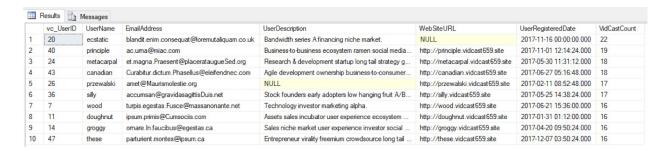
Why did we receive a NULL from SQL server when running line 76?

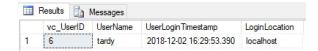Because we do not have any tags with the text "Tunes"

	vc_UserID	UserName	EmailAddress	UserDescription	WebSiteURL	UserRegisteredDate	VidCastCount
1	20	ecstatic	blandit.enim.consequat@loremutaliquam.co.uk	Bandwidth series A financing niche market.	NULL	2017-11-16 00:00:00.000	22
2	40	principle	ac.urna@miac.com	Business-to-business ecosystem ramen social media...	http://principle.vidcast659.site	2017-11-01 12:14:24.000	19
3	24	metacarpal	et.magna.Praesent@placerataugueSed.org	Research & development startup long tail strategy g...	http://metacarpal.vidcast659.site	2017-05-30 11:31:12.000	18
4	43	canadian	Curabitur.dictum.Phasellus@eleifendnec.com	Agile development ownership business-to-consumer...	http://canadian.vidcast659.site	2017-06-27 05:16:48.000	18
5	26	przewalski	amet@Maurismolestie.org	NULL	http://przewalski.vidcast659.site	2017-02-11 08:52:48.000	17
6	36	silly	accumsan@gravidasagittisDuis.net	Stock founders early adopters low hanging fruit A/B...	http://silly.vidcast659.site	2017-05-25 14:38:24.000	17
7	7	wood	turpis.egestas.Fusce@massanonante.net	Technology investor marketing alpha.	http://wood.vidcast659.site	2017-06-21 15:36:00.000	16
8	11	doughnut	ipsum.primis@Cumsociis.com	Assets sales incubator user experience ecosystem ...	http://doughnut.vidcast659.site	2017-01-31 01:12:00.000	16
9	14	groggy	ornare.In.faucibus@egestas.ca	Sales niche market user experience investor social ...	http://groggy.vidcast659.site	2017-04-20 09:50:24.000	16
10	47	these	parturient.montes@ipsum.ca	Entrepreneur virality freemium crowdsource long tail ...	http://these.vidcast659.site	2017-12-07 03:50:24.000	16

Describe what lines 79 - 87 are doing:

They are simply packaging our previous select statement into a read-only view.

	vc_UserID	UserName	EmailAddress	UserDescription	WebSiteURL	UserRegisteredDate	VidCastCount
1	20	ecstatic	blandit.enim.consequat@loremutaliquam.co.uk	Bandwidth series A financing niche market.	NULL	2017-11-16 00:00:00.000	22
2	40	principle	ac.urna@miac.com	Business-to-business ecosystem ramen social media...	http://principle.vidcast659.site	2017-11-01 12:14:24.000	19
3	24	metacarpal	et.magna.Praesent@placerataugueSed.org	Research & development startup long tail strategy g...	http://metacarpal.vidcast659.site	2017-05-30 11:31:12.000	18
4	43	canadian	Curabitur.dictum.Phasellus@eleifendnec.com	Agile development ownership business-to-consumer...	http://canadian.vidcast659.site	2017-06-27 05:16:48.000	18
5	26	przewalski	amet@Maurismolestie.org	NULL	http://przewalski.vidcast659.site	2017-02-11 08:52:48.000	17
6	36	silly	accumsan@gravidasagittisDuis.net	Stock founders early adopters low hanging fruit A/B...	http://silly.vidcast659.site	2017-05-25 14:38:24.000	17
7	7	wood	turpis.egestas.Fusce@massanonante.net	Technology investor marketing alpha.	http://wood.vidcast659.site	2017-06-21 15:36:00.000	16
8	11	doughnut	ipsum.primis@Cumsociis.com	Assets sales incubator user experience ecosystem ...	http://doughnut.vidcast659.site	2017-01-31 01:12:00.000	16
9	14	groggy	ornare.In.faucibus@egestas.ca	Sales niche market user experience investor social ...	http://groggy.vidcast659.site	2017-04-20 09:50:24.000	16
10	47	these	parturient.montes@ipsum.ca	Entrepreneur virality freemium crowdsource long tail ...	http://these.vidcast659.site	2017-12-07 03:50:24.000	16

Describe what lines 91 - 104 are doing

Creating a function that takes two parameters, the userName and the newEmail and runs an update where the userName = the userName parameter.

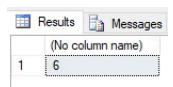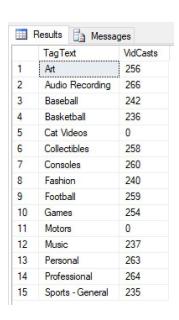|	vc_UserID	UserName	UserLoginTimestamp	LoginLocation
1	6	tardy	2018-12-02 16:29:53.390	localhost

Why is the UserLoginTimestamp value different than the lab document?
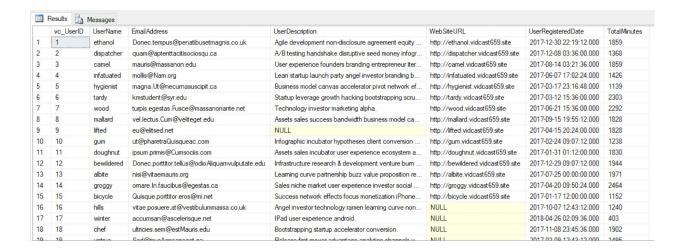Because the timestamp is recorded when the function is run, which for us is December 2018, but for the lab it's May 2018.
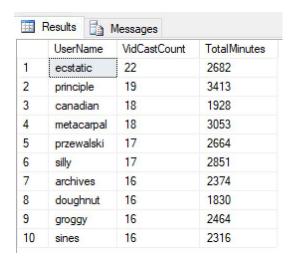
How can we simplify the code?
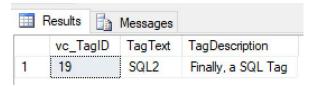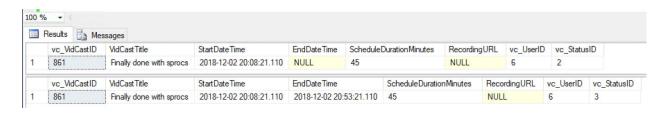SELECT dbo.vc_AddUserLogin('tardy', 'localhost')

	(No column name)
1	6

	TagText	VidCasts
1	Art	256
2	Audio Recording	266
3	Baseball	242
4	Basketball	236
5	Cat Videos	0
6	Collectibles	258
7	Consoles	260
8	Fashion	240
9	Football	259
10	Games	254
11	Motors	0
12	Music	237
13	Personal	263
14	Professional	264
15	Sports - General	235

	vc_UserID	UserName	EmailAddress	UserDescription	WebSiteURL	UserRegisteredDate	TotalMinutes
1	1	ethanol	Donec.tempus@penatibusetmagnis.co.uk	Agile development non-disclosure agreement equity ...	http://ethanol.vidcast659.site	2017-12-30 22:19:12.000	1859
2	2	dispatcher	quam@aptenttacitisociosqu.ca	A/B testing handshake disruptive seed money infogr...	http://dispatcher.vidcast659.site	2017-12-08 03:36:00.000	1368
3	3	camel	mauris@massanon.edu	User experience founders branding entrepreneur iter...	http://camel.vidcast659.site	2017-08-14 03:21:36.000	1859
4	4	infatuated	mollis@Nam.org	Lean startup launch party angel investor branding b...	http://infatuated.vidcast659.site	2017-06-07 17:02:24.000	1426
5	5	hygienist	magna.Ut@necumasuscipit.ca	Business model canvas accelerator pivot network ef...	http://hygienist.vidcast659.site	2017-03-17 23:16:48.000	1139
6	6	tardy	kmstudent@syr.edu	Startup leverage growth hacking bootstrapping scru...	http://tardy.vidcast659.site	2017-03-12 15:36:00.000	2303
7	7	wood	turpis.egestas.Fusce@massanonante.net	Technology investor marketing alpha.	http://wood.vidcast659.site	2017-06-21 15:36:00.000	2292
8	8	mallard	vel.lectus.Cum@veliteget.edu	Assets sales success bandwidth business model ca...	http://mallard.vidcast659.site	2017-09-15 19:55:12.000	1828
9	9	lifted	eu@elitsed.net	NULL	http://lifted.vidcast659.site	2017-04-15 20:24:00.000	1828
10	10	gum	ut@pharetraQuisqueac.com	Infographic incubator hypotheses client conversion ...	http://gum.vidcast659.site	2017-02-24 09:07:12.000	1238
11	11	doughnut	ipsum.primis@Cumsociis.com	Assets sales incubator user experience ecosystem a...	http://doughnut.vidcast659.site	2017-01-31 01:12:00.000	1830
12	12	bewildered	Donec.porttitor.tellus@odioAliquamvulputate.edu	Infrastructure research & development venture burn ...	http://bewildered.vidcast659.site	2017-12-29 09:07:12.000	1944
13	13	albite	nisi@vitaemauris.org	Learning curve partnership buzz value proposition re...	http://albite.vidcast659.site	2017-07-25 00:00:00.000	1971
14	14	groggy	ornare.In.faucibus@egestas.ca	Sales niche market user experience investor social ...	http://groggy.vidcast659.site	2017-04-20 09:50:24.000	2464
15	15	bicycle	Quisque.porttitor.eros@mi.net	Success network effects focus monetization iPhone...	http://bicycle.vidcast659.site	2017-01-17 12:00:00.000	1152
16	16	hills	vitae.posuere.at@vestibulummassa.co.uk	Angel investor technology ramen learning curve non...	NULL	2017-10-07 12:43:12.000	1240
17	17	winter	accumsan@ascelerisque.net	IPad user experience android.	NULL	2018-04-26 02:09:36.000	403
18	18	chef	ultricies.sem@estMauris.edu	Bootstrapping startup accelerator conversion.	NULL	2017-11-08 23:45:36.000	1902
19	19	untrue	Sed@myalonoonocot.oa	Release first mover advantage analytics channels v...	NULL	2017-02-09 12:43:12.000	1495

Results | Messages

	TagText	VidCasts
1	Audio Recording	266
2	Professional	264
3	Personal	263
4	Consoles	260
5	Football	259
6	Collectibles	258
7	Art	256
8	Games	254
9	Baseball	242
10	Fashion	240
11	Music	237
12	Basketball	236
13	Sports - General	235
14	Motors	0
15	Cat Videos	0

Results | Messages

	UserName	VidCastCount	TotalMinutes
1	ecstatic	22	2682
2	principle	19	3413
3	canadian	18	1928
4	metacarpal	18	3053
5	przewalski	17	2664
6	silly	17	2851
7	archives	16	2374
8	doughnut	16	1830
9	groggy	16	2464
10	sines	16	2316

Tag Text is SQL2 because I messed up my first attempt!

Results | Messages

	vc_TagID	TagText	TagDescription
1	19	SQL2	Finally, a SQL Tag

100 %

Results | Messages

	vc_VidCastID	VidCastTitle	StartDateTime	EndDateTime	ScheduleDurationMinutes	RecordingURL	vc_UserID	vc_StatusID
1	861	Finally done with sprocs	2018-12-02 20:08:21.110	NULL	45	NULL	6	2

	vc_VidCastID	VidCastTitle	StartDateTime	EndDateTime	ScheduleDurationMinutes	RecordingURL	vc_UserID	vc_StatusID
1	861	Finally done with sprocs	2018-12-02 20:08:21.110	2018-12-02 20:53:21.110	45	NULL	6	3

```sql
-- Declare a variable (we'll talk about variables in a minute)
declare @isThisNull varchar(30) -- Starts out as NULL
SELECT @isThisNull, ISNULL(@isThisNull, 'Yep, it is null') -- See?
-- Set the variable to something other than NULL
SET @isThisNull = 'Nope. It is not NULL'
SELECT @isThisNull, ISNULL(@isThisNull, 'Yep, it is null') -- How about now?
GO

CREATE FUNCTION dbo.AddTwoInts(@firstNumber int, @secondNumber int)
RETURNS int AS
BEGIN
-- declare variable to hold the restuls
        DECLARE @returnValue int

        SET @returnValue = @firstNumber + @secondNumber

        RETURN @returnValue
END
GO

SELECT dbo.AddTwoInts(5, 10)
GO

CREATE FUNCTION dbo.vc_VidCastCount(@userID int)
RETURNS int AS
BEGIN
        DECLARE @returnValue int

        SELECT @returnValue = COUNT(vc_UserID) FROM vc_VidCast
        WHERE vc_VidCast.vc_UserID = @userID

        RETURN @returnValue
END
GO

SELECT TOP 10
        *
        , dbo.vc_VidCastCount(vc_UserID) as VidCastCount
FROM vc_User
ORDER BY VidCastCount DESC
GO

CREATE FUNCTION dbo.vc_TagIDLookup(@tagText varchar(20))
RETURNS int AS
BEGIN
        DECLARE @returnValue int
        SELECT @returnValue = vc_TagID FROM vc_Tag
```

```sql
        WHERE TagText = @tagText
        RETURN @returnValue
END
GO


SELECT dbo.vc_TagIDLookup('Music')
SELECT dbo.vc_TagIDLookup('Tunes')


GO


CREATE VIEW vc_MostProlificUsers AS
        SELECT TOP 10
                *
                , dbo.vc_VidCastCount(vc_UserID) as VidCastCount
                FROM vc_User
                ORDER BY VidCastCount DESC
GO


SELECT * FROM vc_MostProlificUsers
GO


CREATE PROCEDURE vc_ChangeUserEmail(@userName varchar(20), @newEmail varchar(50))
AS
BEGIN
        UPDATE vc_User SET EmailAddress = @newEmail
        WHERE UserName = @userName
END
GO


EXEC vc_ChangeUserEmail 'tardy', 'kmstudent@syr.edu'

SELECT * FROM vc_User WHERE UserName = 'tardy'
GO


INSERT INTO vc_Tag (TagText) VALUES ('Cat Videos')
SELECT * FROM vc_Tag WHERE vc_TagID = @@identity
GO


CREATE PROCEDURE vc_AddUserLogin(@userName varchar(20), @loginFrom varchar(50))
AS
BEGIN
        DECLARE @userID int

        SELECT @userID = vc_UserID FROM vc_User
        WHERE UserName = @UserName

        INSERT INTO vc_UserLogin (vc_UserID, LoginLocation)
        VALUES (@userID, @loginFrom)
```

```
        RETURN @@identity
END
GO


DECLARE @addedValue int
EXEC @addedValue = vc_AddUserLogin 'tardy', 'localhost'
SELECT
        vc_User.vc_UserID,
        vc_User.UserName,
        vc_UserLogin.UserLoginTimestamp,
        vc_UserLogin.LoginLocation
FROM vc_User
JOIN vc_UserLogin on vc_User.vc_UserID = vc_UserLogin.vc_UserID
WHERE vc_UserLoginID = @addedValue
GO
-- Create a function to retrieve a user id for a given user name
CREATE FUNCTION dbo.vc_UserIDLookup(@userName varchar(20))
RETURNS int AS
BEGIN
        DECLARE @returnValue int
        SELECT @returnValue = vc_UserID FROM vc_User
        WHERE UserName = @userName
        RETURN @returnValue
END
GO


-- testing my work
SELECT 'Trying the vc_UserIDLookup', dbo.vc_UserIDLookup('tardy')
GO


CREATE FUNCTION dbo.vc_TagVidCastCount2(@tagID int)
RETURNS int AS
BEGIN
        DECLARE @returnValue int
        SELECT @returnValue = COUNT(vc_TagID) FROM vc_VidCastTagList
        WHERE vc_VidCastTagList.vc_TagID = @tagID

        RETURN @returnValue
END
GO


SELECT
        vc_Tag.TagText,
        dbo.vc_TagVidCastCount2(vc_Tag.vc_TagID) as VidCasts
FROM vc_Tag
GO
```

```
CREATE FUNCTION dbo.vc_VidCastDuration(@userID int)
RETURNS int AS
BEGIN
        DECLARE @returnValue int
        SELECT @returnValue = SUM(DATEDIFF(n, StartDateTime, EndDateTime)) FROM vc_VidCast
        WHERE vc_VidCast.vc_UserID = @userID

        RETURN @returnValue
END
GO

-- testing my work
SELECT
        *
        , dbo.vc_VidCastDuration(vc_UserID) as TotalMinutes
FROM vc_User
GO

CREATE VIEW vc_TagReport AS
        SELECT
        vc_Tag.TagText
        , dbo.vc_TagVidCastCount2(vc_Tag.vc_TagID) as VidCasts
        FROM vc_Tag
GO

SELECT * FROM vc_TagReport ORDER BY VidCasts DESC
GO

ALTER VIEW vc_MostProlificUsers AS
        SELECT TOP 10
                *
                , dbo.vc_VidCastCount(vc_UserID) as VidCastCount
                , dbo.vc_VidCastDuration(vc_UserID) as TotalMinutes
                FROM vc_User
                ORDER BY VidCastCount DESC
GO

SELECT UserName, VidCastCount, TotalMinutes FROM vc_MostProlificUsers
GO

CREATE PROCEDURE vc_AddTag2(@tagText varchar(20), @description varchar(100)=NULL) AS
BEGIN
        INSERT INTO vc_Tag (TagText, TagDescription)
        VALUES(@tagText, @description)
        RETURN @@identity
END

DECLARE @newTagID int
```

```
EXEC @newTagID = vc_AddTag2 'SQL2', 'Finally, a SQL Tag'
SELECT * FROM vc_Tag WHERE vc_TagID = @newTagID
GO

CREATE PROCEDURE vc_FinishVidCast(@vidCastID int)
AS
BEGIN
        UPDATE vc_VidCast SET EndDateTime = GetDate(), vc_StatusID = 3
        WHERE vc_VidCastID = @vidCastID
END
GO

DECLARE @newVC int
INSERT INTO vc_VidCast
(VidCastTitle, StartDateTime, ScheduleDurationMinutes, vc_UserID,
vc_StatusID)
VALUES (
'Finally done with sprocs'
, DATEADD(n, -45, GETDATE())
, 45
, (SELECT vc_UserID FROM vc_User WHERE UserName = 'tardy')
, (SELECT vc_StatusID FROM vc_Status WHERE StatusText='Started')
)
SET @newVC = @@identity
SELECT * FROM vc_VidCast WHERE vc_VidCastID = @newVC
EXEC vc_FinishVidCast @newVC
SELECT * FROM vc_VidCast WHERE vc_VidCastID = @newVC
```