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IST 659 Data Admin Concepts & Db Mgmt

Date: 7/15/2018

Lab Assignment: Week 1, The Relational Data Model

Description / Learning Objective

- Demonstrate understanding of the relational database model
- Identify ways the relational database model improves upon file-based data storage systems
- Demonstrate basic model creation using diagramming tools

Tasks:

- Identify problem spots and recommend improvements that the relational data model can afford
- Use an online software tool to create a basic diagram

To-do:

- Review the **VidCast Datasheet** and find ways to **improve it**.
- Identify **at least 4 challenges** to fitting this data into the relational data model.
 - Example: "Not every row in the sheet has a user name"

Responses:

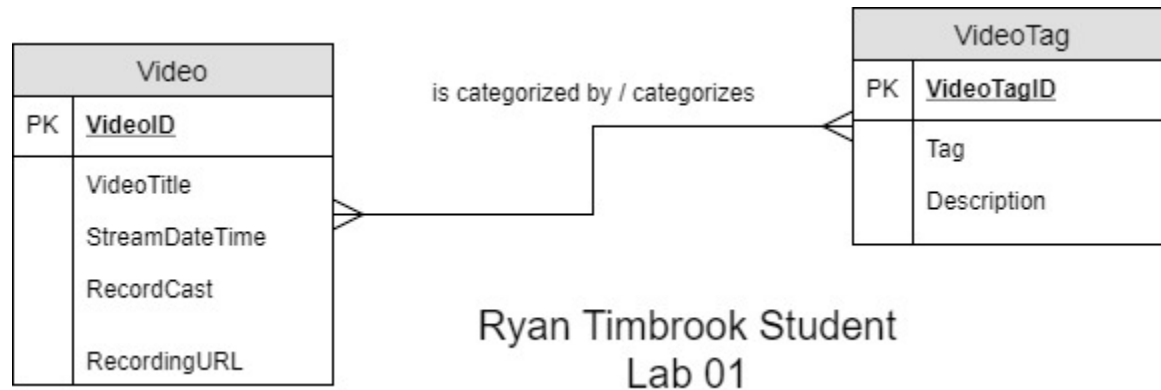
Question 1, Part 1 – Identify at least 4 challenges

Challenges:

1. Not every row in the sheet has User Tags
2. Not every row in the sheet has Followers and some of the rows values are numeric counts of the number of followers they have rather than the required names of the users that are following them.
3. Not every row in the sheet has a Stream Date and the field values in these rows are varchar's that will need to be cleaned and translated into proper datetime formatted values
4. Not every row in the sheet has a Video Duration and the field values in these rows are varchar's that will need to be cleaned and translated into a duration data type like numeric and specified as milliseconds
5. Not every row in the sheet has a File Location specified

Question 1, Part 2 – Creating a basic ERD using draw.io

Lab 01 – Basic ERD



Appendix – Tables and Diagrams used in this lab

Table 1 -VidCast Datasheet

User Name	User Tags	Followers	Video Title	Video Tags	Stream Date	Video Duration	File Location
ChadOnData	Data, SQL, SQLServer	7	Running a Query	SQL Server, SQL	3/8/2018	43 minutes	/videos/12354.mp4
			Creating a database	SQL		22m	/videos/123.mp4
Tyrone Rugen	Machinery, Polydactyl	Prince Humperdink; Clergyman, Impressive	There's a lunatic following me	Help	April 1, 2018	5m	
Saul Hudson	Guitar, Rock	ChadOnData, Reginald Dwight, Adam Neely	String changing exercises as hit songs	GnR, Gibson, Guitar, Msic Throey	3/7/2018	00:06	/videos/563456.mp4
Reginald Dwight	Piano, Soundtraqcks	15	England Rose	Princess, Tribute	18/3/2018	1 hour, 5 minutes, 16 seconds	/videos/7345.mp4
			Norma Jean	Starlet	20/2/2018	6 minutes, 12 seconds	/videos/9834.mp4
Charlie and the Biebs	Hoops, Basketball, MS SQL Server	67	God, Country, Boeheim Weekly	SU Orange, Basketball	3/8/2018, 3/15/2018, 3/22/2018	1hour 43 minutes	/videos/2345.mp4 /videos/2347.mp4 /videos/2346.mp4
Inigo Montoya	Revenge, Swordplay	Fezzik, Buttercup, Westley	The Six-Fingered Man: I found him	Revenge			

Extract from Lab

