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IST 659 Data Admin Concepts & Db Mgmt

Date: 8/6/18

Lab Assignment: Lab 4, Normalization

Description / Learning Objective

- Demonstrate understanding normalization
- Demonstrate ability to normalize relations into at least third normal form (3NF)
- Identify candidate keys and functional dependencies and remove them from relations

Responses:

Part 1, Normalizing an Existing Data Set - Case Study 1 – Rad Chad's Bikes

No response required, was informational only

Part 1, Normalizing an Existing Data Set - Case Study 2 – More Bikes

Order(Order Num, Cust Num, Order Date)

Customer(Cust Num, Name, Postal Code, State)

OrderItem(Order Num, Line, Item Number, Qty Ordered)

Item(Item Number, Description, Price Each)

Part 1, Normalizing an Existing Data Set - Case Study 3 – Books Again

1.) Screen Print of Access Database Tables, Publisher

PublisherID	PublisherName	Click to Add
1	Pearson	
2	Addison Wesley	

BookID	BookTitle	Authors	PublishedYe	Click to Add
1	Modern Database Manag	Hoffer, Kamesl	2015	
3	Data Structures and Algo	Weiss	2014	
(New)			0	
1	Language and Machines	Sudkaamp	1997	
(New)			0	
(New)				

- 2.) Authors need to be broken out into its own entity for Book to be 3NF
 Book(BookID, BookTitle, **AuthorID**, PublishedYear, *PublisherID*)
Author(AuthorID, First Name, Last Name)

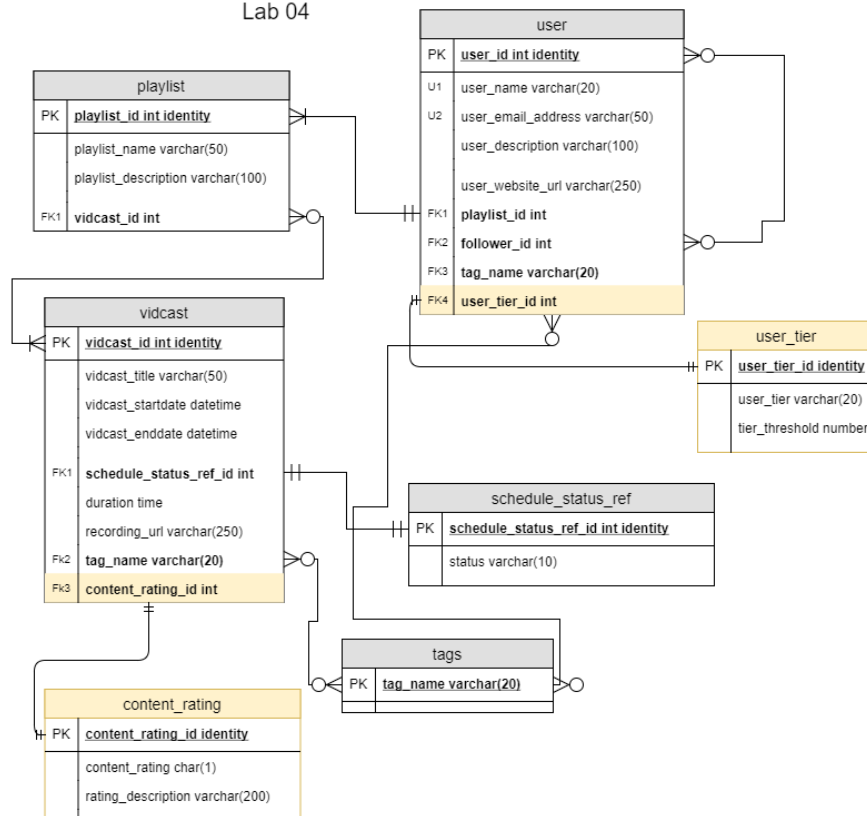
Part 2, Part 1 – Normalizing Video Data for VidCast

Decompose this data set into 3NF relations:

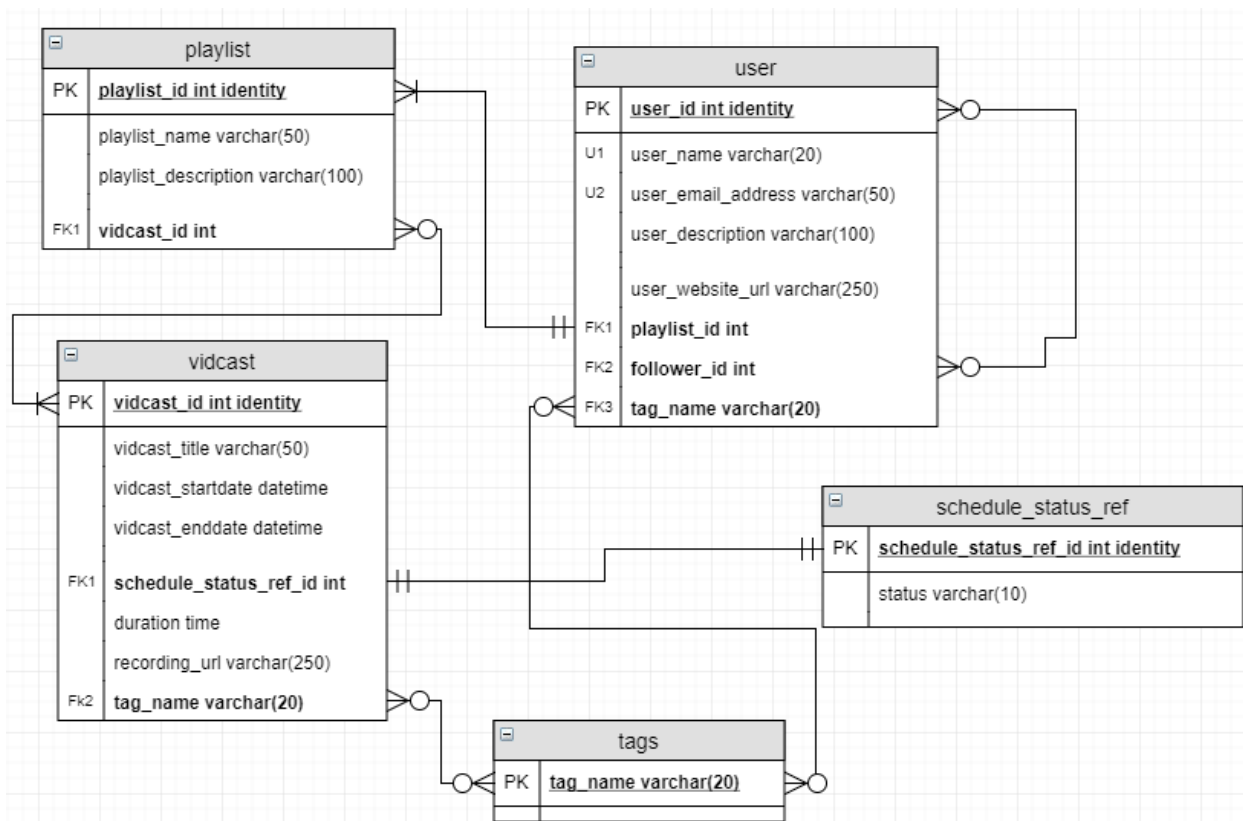
Video ID	Video Title	User Name	User Tier	Min Tier Followers	Stream Start	Video Duration (mins)	Content Rating	Rating Description
1	Using SQL	ChadOnData	Platinum	1,000	5/9/18 21:40	48	E	Everyone
2	Just How Great is Jim Boeheim	CuckLazerbeam	Gold	500	1/9/18 10:50	111	E	Everyone
3	Top Hats are Cool	TheSaulHudson	Silver	200	5/30/18 23:10	131	M	Mature audiences
4	How Many Years for the Man in Black	TyroneRugen	Bronze	0	1/13/18 14:50	104	M	Mature audiences
5	Digital Underground: Are they the best?	CuckLazerbeam	Gold	500	2/20/18 23:30	20	C	Viewer caution recommended
6	Check out these new glasses	RegDwight	Platinum	1,000	11/2/18 22:32	17	E	Everyone
7	PolyDactyly and You	TyroneRugen	Bronze	0	9/28/18 10:16	180	C	Viewer caution recommended
8	Meeting Vizini at the Beginning	TheSpaniard	Platinum	1,000	11/26/18 8:55	123	E	Everyone
9	Me and My Les Paul	TheSaulHudson	Silver	200	3/15/18 5:17	64	M	Mature audiences
10	Careful Jogging of Memories: A Retrospective	RhymingGiant	Bronze	0	10/9/18 16:05	114	E	Everyone

Updated LM Model, Normalized, from Lab 3:

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Lab 04



Reference LM from Lab 3:



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Lab 03