Beverlyn Tucker

IST659_M406 Week4_Lab4

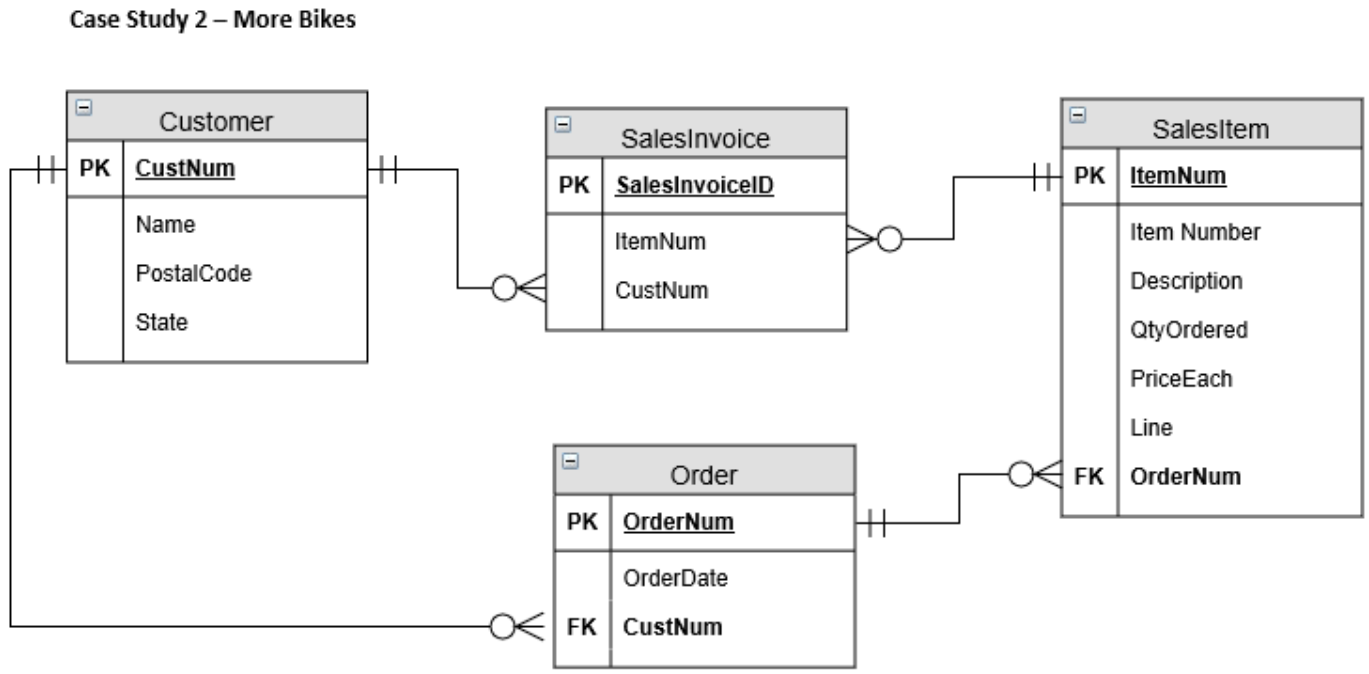
Lab 04 – Normalization

Case Study 2 More Bikes

Your Turn: Using the steps to normalize a relation, normalize the OrderData relation to 3NF. You can either diagram the final relations or use the relational notation described in this document. You do not need to recreate the spreadsheets for this. You need only provide the final normalized relations in your answer document.

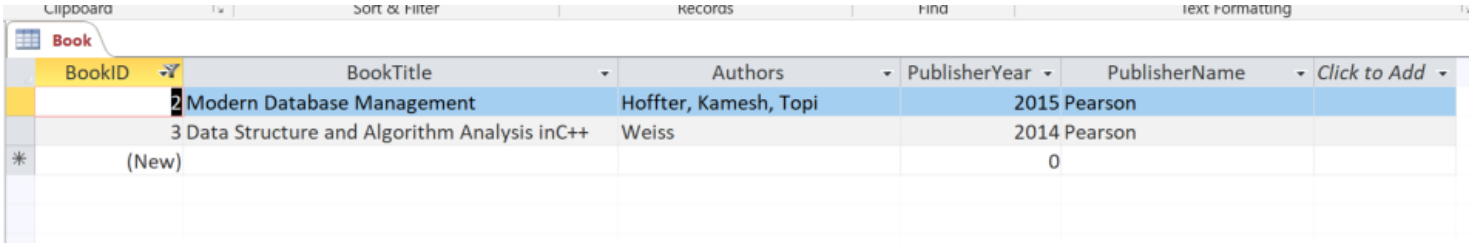
Order Num	Line	Item Number	Description	Qty Ordered	Price Each
106	1	FA-10000	Bicycle Model 30,26"	100	$ 280.00
106	2	TA-50000	Tire 26" Tubeless	100	$ 15.00
106	3	TA-60000	Hub, Wheel 32" Hole	200	$ 4.00
108	1	AL-10000	Steel,Chromium	10	$ 3.85
108	2	CG-10000	Grips,Cushioned	200	$ 2.50
109	1	FA-20000	Bicycle,Model-50,26"	200	$ 320.00
109	2	CP-15000	Seat,Deluxe	1,500	$ 8.00
109	3	TA-60000	Hub, Wheel 32" Hole	400	$ 8.00
109	4	TA-50000	Tire,26",Tubeless	1,000	$ 30.00
110	1	FA-10000	Bicycle,Model-30,26"	250	$ 280.00
110	2	FA-20000	Bicycle,Model-50,26"	50	$ 320.00
110	3	FA-30000	Bicycle,Model-100,700mm,Eurocycle	150	$ 450.00
110	4	CP-15000	Seat,Deluxe	100	$ 4.00
116	1	FA-10000	Bicycle,Model-30,26"	100	$ 290.00
116	2	FA-20000	Bicycle,Model-50,26"	50	$ 320.00
116	3	CP-15000	Seat,Deluxe	50	$ 5.00
116	4	TA-50000	Tire,26",Tubeless	25	$ 20.00
116	5	CP-10000	Seat,Padded	50	$ 2.30
134	1	FA-30000	Bicycle,Model-100,700mm,Eurocycle	20	$ 450.00
134	2	FA-20000	Bicycle,Model-50,26"	15	$ 350.00

Figure 15 - The Order Data needs 3NFifying. 3NFifying? Is that a word?



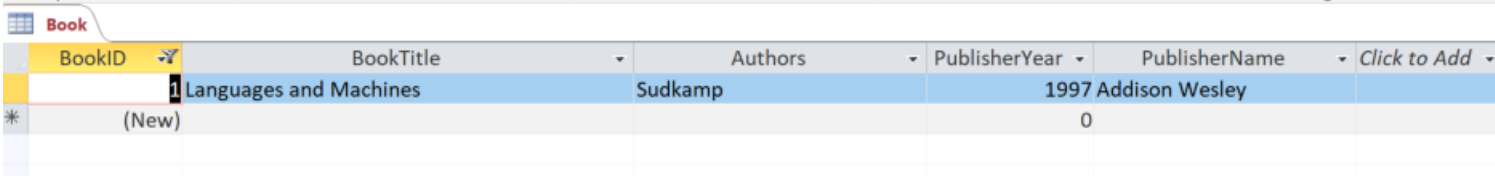
Case Study 3 – Books Again

AccessDataBase



Book

BookID	BookTitle	Authors	PublisherYear	PublisherName	Click to Add
2	Modern Database Management	Hoffter, Kamesh, Topi	2015	Pearson	
3	Data Structure and Algorithm Analysis inC++	Weiss	2014	Pearson	
(New)			0		



Book

BookID	BookTitle	Authors	PublisherYear	PublisherName	Click to Add
1	Languages and Machines	Sudkamp	1997	Addison Wesley	
(New)			0		

Part 2 – Normalizing Video Data for VidCast

Because we did such a great job modeling our VidCast database, most of our tables are already relations in 3NF. After a few meetings, we have added to our requirements for tracking video data and need to make some adjustments to the tables to accommodate.

The following is a spreadsheet of data built by the design team

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	ChuckLazerbeam	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?	ChuckLazerbeam	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

For the above data set, decompose the relation into 3NF relations. You can either diagram this with Draw.io (or similar) or use the relational notation described in previous exercises.

Note: You do not need to incorporate prior lab diagrams into this.

Part 2 – VidCast Logical Modeling