

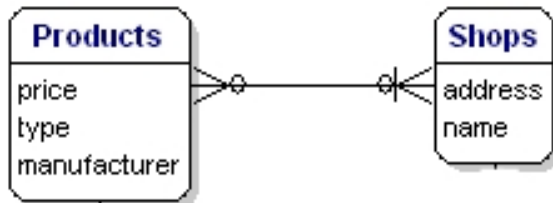
CCS0021 LABORATORY
 TECHNICAL ASSESSMENT
 MODULE 4

Part 1:

Create the entities, subtypes and relationships according to the business rule below. Then map the entities identified into tables. Save this file as TechSumm4_fullname.doc.

BUSINESS RULE:

A Seller can be categorized as Retailer or Wholesaler. All sellers have a seller id, first name, last name, contact no and maximum credit. A retailer has a retailer code, while a Wholesaler has a wholesaler code. Each seller should be categorized only on either a retailer or a wholesaler and cannot be a retailer and a wholesaler at the same time.



Write your answers here:

SELLER

<u>seller_id</u>	seller_firstname	seller_lastname	seller_contactno	seller_maxcredit	seller_type
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RETAILER

<u>rseller_id</u>	retail_code
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WHOLESALER

<u>wseller_id</u>	wholesaler_code
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PRODUCT

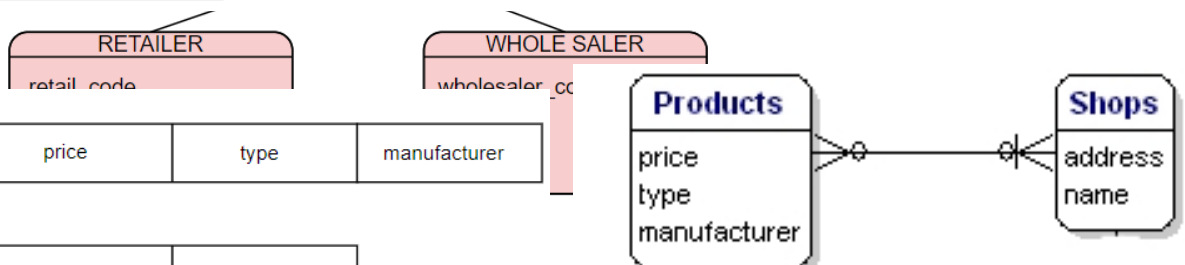
<u>product_id</u>	price	type	manufacturer
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SALE

<u>product_id</u>	<u>shop_id</u>	price
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SHOP

<u>shop_id</u>	address	name
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Part 2:

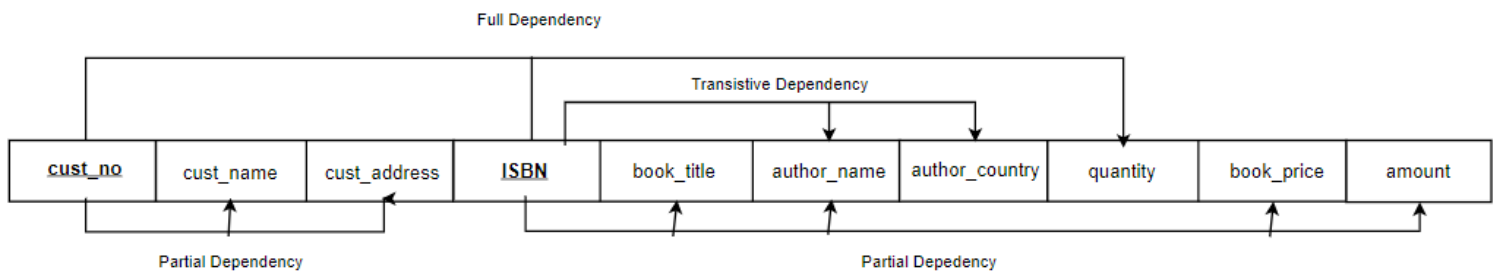
Normalization. Using the table below normalize the table below to its 3rd normal form.

<u>Alpha Book House, Pune - 413001</u>						
Customer No. : 1052						
Customer Name: Beta school of computer science						
Address: 1234 Saint St., Sta Cruz manila						
ISBN	Book Title	Author's Name	Author's Country	Qty	Price (\$.)	Amount (\$)
81-203-5	DOS	P.K.Sinha	India	5	250	1250
0-112-6	DBMS	Korth	U.S.A.	6	300	1800
1-213	Simulation	Gordon	U.S.A.	5	100	500
Grand Total						3550

Answer:

1st Normal Form

Functional Dependency



Cust no, ISBN -> quantity

cust no -> cust_name, cust_address

ISBN -> book_title, author_name, book_price, amount

ISBN -> author_name, author_country

Table 1

<u>cust_id</u>	cust_name	cust_add	<u>ISBN</u>	book_title	author_name	author_country	quantity	book_price	amount
1052	Beta school of computer science	1234 Saint St., Sta Cruz manila	81-203-5	DOS	P.K.Sinha	India	5	250	1250
1052	Beta school of computer science	1234 Saint St., Sta Cruz manila	0-112-6	DBMS	Korth	U.S.A.	6	300	1800
1052	Beta school of computer science	1234 Saint St., Sta Cruz manila	1-213	Simulation	Gordon	U.S.A.	5	100	500

2nd Normal Form

Functional Dependency

<u>cust_no</u>	cust_name	cust_address	Customer Line
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<u>ISBN</u>	book_title	author_name	book_price	amount	Book Line
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cust no -> cust_name, cust_address

ISBN -> book_title, author_name, book_price, amount

Table 1

cust_id	cust_name	cust_add
1052	Beta school of computer science	1234 Saint St., Sta Cruz manila
1052	Beta school of computer science	1234 Saint St., Sta Cruz manila
1052	Beta school of computer science	1234 Saint St., Sta Cruz manila

Table 2

ISBN	book_title	author_name	book_price	amount
81-203-5	DOS	P.K.Sinha	250	1250
0-112-6	DBMS	Korth	300	1800
1-213	Simulation	Gordon	100	500

3rd Normal Form

Functional Dependency

<u>ISBN</u>	author_name	author_country	Author Line
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ISBN -> author_name, author_country

Table 1

ISBN	author_name	author_country
81-203-5	P.K.Sinha	India
0-112-6	Korth	U.S.A.
1-213	Gordon	U.S.A.