Normalisation (RDA) Exercise 2

Identify the data in the invoice (only) and normalise it to 3rd Normal Form (3NF), showing each of the intermediate stages.

If you have time left, try drawing a bottom up data model (ERDs) for your solutions to exercises 1 and 2 and then merging (either the normalisations or the bottom up data models) to produce a bottom up data model encompassing both the product sales report and the invoice data.

TopDog Ltd

TopDog Ltd is a company which allows discount prices to its customers. There are four discount prices for each product, and each customer that is entitled to discount prices will be allocated a single discount code (either A, B, C or D). A customer with an "A" discount code, for example, will be charged the "A" Price for all the products they order. Thus before pricing a product ordered by a customer TopDog checks the customer's discount code so that the correct discount can be given.

Invoice

TopDog Ltd, Topdog Lane, Smallville SM3 8FG

INVOICE NO: 128321   DATE: 01/01/23

CUSTOMER NO: 2637   CUSTOMER NAME AND ADDRESS:

> Bill Bloggs & Co
> Tatty Little Hut
> Railway Arch
> Grimtown

Product Number	Description	Std Price	Disc Code	Disc Price	Qty	Price
01002	Whatnot	2637	A	900	10	9000
01023	Doggit	4111	A	40	200	8000
03376	Oojit	5517	A	8	200	1600
02173	Thingy	1030	A	12	300	3600
01552	Doofer	1100	A	100	100	10000

For reference only:

Product Sales Report					
TopDog Ltd, Topdog Lane, Smallville SM3 8FG					
PRODUCT NO: 01023			DESCRIPTION: Doggits		
Invoice Number	Invoice Date	Customer Number	Name	Qty	Price
128321	01/01/23	2637	Bloggs	200	8000
128375	02/01/23	4111	Smith	100	4300
128429	10/04/23	5517	Khalid	320	12800
128666	15/06/23	1030	Buggins	30	1380