

Lab 09 – Normalization

(UNF, 1NF)

Objective:

- Students create the **Un-normalized Form** (UNF) relation from a user view.
- Students identify a **Multi-valued Dependency** (a.k.a. Repeating Group)
- Students create the **First Normal Form** (1NF) relation from the UNF.

Lab 09 Submission:

QUESTION 1

Examine the following report:

Premiere Corporation Parts List

Part Number	Part Description	Qty On Hand	Class	Warehouse On Hand	Price
AX12	Iron	104	HW	3	24.95
AZ52	Dartboard	20	SG	2	12.95
BA74	Basketball	40	SG	1	29.95
BH22	Cornpopper	95	HW	3	24.95
BT04	GasGrill	11	AP	2	149.99
BZ66	Washer	52	AP	3	399.99
CA14	Griddle	78	HW	3	39.99
CB03	Bike	44	SG	1	299.99
CX11	Blender	112	HW	3	22.95
CZ81	Treadmill	68	SG	2	349.95

A.) What type of data does each line in the report represent?

The displayed data represent a list of products, called “parts”, assumably from a retail store.

B.) What attributes can you identify from the user view?

PartNumber,
PartDescription,
PartQuantityOnHand ,

PartClass,
PartWarehouseOnHand,
PartPrice

C.) What would be a suitable name for the UNF relation?

Parts

D.) Which attribute would be suitable as a primary key?

PartNumber

E.) Describe the UNF relation using DBDL:

Parts [**PK** PartNumber, PartDescription, PartQuantityOnHand , (PartClass), PartWarehouseOnHand, PartPrice]

QUESTION 2

For the following User View, determine the UNF and the 1NF and hand in this page to your instructor.

Premiere Corporation Order Detail Report

Order Number	Order Date	Cust number	Part Number	Part Desc	Number Ordered	Quoted Price	Total
12489	2016-09-02	124	AX12	Iron	11	14.95	164.45
12491	2016-09-02	311	BT04	GasGrill	1	149.99	149.99
			BZ66	Washer	2	399.99	799.98
12494	2016-09-04	315	CB03	Bike	4	279.99	1,119.96
12495	2016-09-04	256	CX11	Blender	2	22.95	45.90
12498	2016-09-05	522	AZ52	Dartboard	2	12.95	25.90
			BA74	Basketball	4	24.95	99.80
12500	2016-09-05	124	BT04	GasGrill	3	149.99	449.97
12504	2016-09-05	522	CZ81	Treadmill	2	325.99	651.98

UNF: CorporationOrder [**PK Order_num**, Order_date, Cust_num, (Part_num, Part_desc, Num_order, Qty, Total)]

1NF: CorporationOrder [**PK Order_num**, **PK Part_num**, Order_date, Cust_num, Part_desc, Num_order, Qty, Total]