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.

Submission:

Save your lab file as a PDF file. You need to submit a single PDF ***file for this lab. The name of the file must be as follow:***

L09_ID_LASTNAME.pdf

Definitions:

Definition: **Normalization** is the process of assigning attributes to relations in such a way that data redundancies are reduced or eliminated.

Definition**: User Views** can be individual descriptions, reports, forms, or lists of data that are required to support the operations of a particular database user.

Definition: **Unnormalized form (UNF)** is a relation that contains one or more **Multi-valued Dependencies**.

Definition: A **Multi-valued Dependency** is an attribute or collection of attributes within a relation that has multiple values for a single value of the primary key for that relation.

Definition: A relation is in **1NF** if it does not contain any multi-valued dependencies.

Lab 09 Submission:

1.   **For the following User View, determine the UNF and the 1NF and hand in this page to your instructor. Solve this without splitting the table.**

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	99.80	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:

OrderDetail [**OrderNo**, Orderdate, CustNo, (PartNo, PartDesc, NoOrd, Price, Total)]

1NF:

OrderDetail [**OrderNo**, **PartNo**, **CustNo** Orderdate, ,PartDesc, NoOrd, Price, Total]