

E4.7 –

- a. Full Key = (ShipmentID, ProductID, Quantity)
Partial Key = (ShipmentID, ShipmentDate, TruckID, TruckType) (ProductID, ProductType)
Transitive Key = (TruckID, TruckType)
- b. 2NF

<u>ShipmentID</u>	ShipmentDate	TruckID	TruckType	<u>ProductID</u>	Quantity	<u>ProductID</u>	ProductType
111	1 – Jan	T – 111	Semi – Trailer	A	180	A	Tire
111	1 - Jan	T – 111	Semi – Trailer	B	120	B	Battery
222	2 - Jan	T – 222	Van Truck	C	10,000	C	SparkPlug
333	3 - Jan	T – 333	Semi – Trailer	D	5,000	D	Wipers
333	3 - Jan	T – 333	Semi – Trailer	A	200		
444	3 - Jan	T – 222	Van Truck	C	25,000		
555	3 - Jan	T – 111	Semi – Trailer	B	180		

- c. 3NF

<u>ShipmentID</u>	ShipmentDate	TruckID	<u>ProductID</u>	Quantity	<u>ProductID</u>	ProductType	<u>TruckID</u>	TruckType
111	1 – Jan	T – 111	A	180	A	Tire	T – 111	Semi – Trailer
111	1 - Jan	T – 111	B	120	B	Battery	T – 222	Van Truck
222	2 - Jan	T – 222	C	10,000	C	SparkPlug	T – 333	Semi – Trailer
333	3 - Jan	T – 333	D	5,000	D	Wipers		
333	3 - Jan	T – 333	A	200				
444	3 - Jan	T – 222	C	25,000				
555	3 - Jan	T – 111	B	180				