Assignment 5 – Jovannie Jihad Sweeting

**A.**

Multivalued Dependencies: **From, Contact, Phone, Shipper, City**

Functional Dependencies: **ShipmentNumber → ( Shipper, Phone, Contact, From, Departure, Arrival, Contents, InsuredValue, Item, Date, City, Store, Salesperson, Price)**

**Contact→ (Phone, Item, ShipmentNumber, City)**

**Item→ (Contents, ShipmentNumber, InsuredValue, Price, Store, Salesperson, From, Arrival, Date)**

Candidate Keys(s): **Item → (ShipmentNumber, Contents)**

**Contacts → ( ShipmentNumber)**

Primary Key(s): **ShipmentNumber, Contact, Item,**

Foreign Key(s): **ShipmentNumber, Contact**

*Based on the data given by given, I surmised with three possible tables. For multivalued dependencies, attributes like From, Contact, and Phone carried the same value since one buyer bought more than one item and bought from different places. The Functional dependencies are what I proposed by mingling them into three tables based on the kind of information given. The names of three tables that would be created are BUYER, ITEM, AND ITEM\_SHIPMENT. The primary keys would be ShipmentNumber, Contact, and Item since they serve primarily to* identify *the relations in the rows because it would easily identifiable to the buyer/seller. Likewise, ShipmentNumber and Contact would become foreign keys since they must relate have a relation to keep track on what the buyer bought.*

**B.**

“Mr. Morgan, I have several questions concerning with the data you provided…”

1. By City and From, is city is where you are getting the item and From is where the item was purchased or vice versa?
2. Why is the attribute **Shipper** seems to have the same exact information for every column but in a different name? Wordwide(or Worldwide) and Intenational(or International) are the same thing, Morgan.
3. Is it possible to include a last name to the contacts rather than just the first name to ensure that there are no confusion for contacts with the same names?