How do you start designing your database and working on the project? Structural business rules are a great place to start. They are a useful tool to frame and guide your design; they indicate the entities, relationships, optionalities, and pluralities of your Term Project design. For example, “A person may own many cars; a car is owned by one person” is an example of a structural business rule. This iteration will be primarily about creating your first draft of your structural business rules.

Provide a complete list of business rules for all entities and relationships in your design.

To create the rules, you first need to consider the data your database will need to store, and how that data will be used. The Term Project document breaks this down into five aspects; please read through those carefully to understand them.

This Term Project iteration is *not* a final submission of what you develop. You have the opportunity to make modifications before the final Term Project submission at the end of the course.

**A SELLER must search one product list; a PRODUCT\_LIST has 0 to many sellers searching it.**

**A PRODUCT\_LIST has 0 to many products; a PRODUCT must be listed in at least one product list.**

**A SELLER has 1 to many products; a PRODUCT must belong to at least one seller.**

**A SELLER has 1 to many listings; a LISTING must be associated with at least one seller.**

**A LISTING may describe one or more unique products for sale; a unique PRODUCT must be shown in a listing.**

**Every PRODUCT must belong to a category; a CATEGORY is comprised of similar products.**

**A SELLER ships one or more units of a product; Each product UNIT is shipped by at least one seller.**

**Each UNIT is comprised of only one product; a PRODUCT is counted as a single unit.**

**Each PRODUCT must belong to a sellers inventory; A SELLERS\_INVENTORY may contain zero to many products.**

**A CUSTOMER may have one or more accounts; each ACCOUNT is associated with one customer.**

**A CUSTOMER can purchase 0 to many products; A PRODUCT is purchased by at least one customer.**

**Each CUSTOMER may select from a sellers inventory; A SELLERS\_INVENTORY is selected by 0 to many customers.**

**A CUSTOMER selects one shipping speed; a SHIPPING\_SPEED is selected by one to many customers.**

**Each ORDER tracks one to many products that were bought; a purchased PRODUCT must be part of an order.**

**A PACKAGE may ship with one to many products inside; each PRODUCT is shipped as a package.**

**Each PACKAGE is assigned one identifier; An IDENTIFIER is assigned to one or more packages.**

**A PACKAGE must be linked to a customers order; an ORDER contains one or more packages.**

**A SHIPMENT contains one or more packages; a PACKAGE must belong to only one shipment.**

**A CUSTOMER receives one or more package identifiers; each IDENTIFIER is sent to only one customer.**

