 SAMPLE SOLUTION TO MIDTERM TEST 1 – LAST TWO PROBLEMS

CIT 381 – Fall 2013

Draw an ER diagram that will model a simple aviation database.

• There are many **airports**, each with an airport code, an airport name, and a city.
• Airplanes come in various **models**. A model has a model ID, a name, a manufacturer, a capacity, a range, and a maximum weight.
• Not all models can use every airport, so we must track which models can **use** which airports.
• Each **airplane** has a registration number, an age (or build-date), and a date when it was last serviced.
• There are several **airlines**. An airline has a code and a name.
• An airline may **serve** several airports and own many airplanes. Each airplane is owned by exactly one airline. An airport may be used by several airlines (or none).
Design a data model for the Tour d’Oregon bicycle race. The primary entities are to be city (store the city name, altitude, and population) and rider (rider number, name, and email). The race consists of a series of legs. Each leg has a number, and is from one city to another. (Example: leg number 5 is from Roseburg to Coos Bay, and is 89 miles long.) In addition, for each rider, you will need to store their time on that leg.