Enumerated Types, cont – 01/31/08

Team Name: _____Members Present:

Be sure that you work to get the answers right. If explanation is required, make sure the answer is complete, concise and correct. Assign a team leader for today, and designate one person to record answers. Feel free to ask questions of other teams or the instructor if you are confused about something.

Task 1:

1. In your group, discuss the lab from Wednesday. Specifically, review answers you have. If someone in the group did the Deck class, have them explain what they did. When you are done reviewing, come up with any additional questions that you have about enum abstract data types and how they work. As a class, we will discuss any questions and solutions. Stop here until we discuss.

Task 2:

1. There are some problems with enum types. We cannot interpret input (such as we might get from the keyboard) as one of the enum types directly. There is no getPlanet method for example. But we could build some intelligence into our enum type to interpret a token from that input stream as one of the objects (or null if it cannot be interpreted.) Thinking about the Planet class, write a method that would take in a token from the input line and will return the correct Planet object if the data matches one of the Planet names and null otherwise. You should think about reasonable ways that the user might enter the name and account for all of those. When finished, put your solution on the board with your team name. Wait here until we discuss.

Task 3:

1. Thinking again of objects (our next big topic), how are enum types similar to objects?
2. How are they different?
3. How many objects can you create from a class file?
4. How many objects can you create from an enum file?

Task 4:

At JMU, there are a limited number of valid grades for undergraduate students taking courses. Some of those grades are passing grades and some are failing grades. The grades all have quality point values associated with them. In this task you will create an enum class that will represent JMU undergraduate grades based on the information provided in the catalog. This class should help with the processing of student grade reports and can be used to determine if a student has successfully passed the course.

1. Design phase.
   a. What grade objects will you include in your class?
   b. What data will those objects contain?
   c. What methods will be helpful to the task?
   d. When complete, wait until we as a class decide on a design before proceeding.
2. Implementation phase.
   a. Implement on paper your design.
   b. When complete, post your answers up on the board.