SYST 17796

ICE 3

This exercise is to be completed individually during class time. Students are allowed to discuss the exercise and provide assistance to one another but each student is responsible for their own final product. Students not present in class are not eligible for credit unless they are eligible for a specific accommodation which is worked out between the instructor and that student according to class/departmental/college policies.

# Overview

This Exercise will allow students to demonstrate their understanding of the following critical concepts from Week 8:

* UML associations in class diagrams
* Modelling Inheritance, Composition and Aggregation

# Credit/Necessary Information

Read the following narrative and produce the UML Class Diagram that best represents the ER admission system described. Include multiplicities, associations, fields and any inheritance/whole-to-part relationships

***An online admissions service in a hospital emergency department has several tasks. It is responsible for printing patient wrist bands upon admission. The basic wrist bands are assigned to one patient and a patient may have multiple wrist bands depending on their needs when admitted. The basic wrist band lists the patient’s name, date of birth and family doctor. There are several other types of wrist bands which include but are not limited to allergy wrist bands which have all of the basic wrist band criteria plus the name of any medications the patients are allergic to and children’s wrist bands which have the basic wrist band criteria and also list the name of an accompanying parent. Each wrist band can be broken into two parts: the bar code section which contains a unique bar code and the information section, containing specific medical details about the patient.***

***Patients in the ER are also occasionally asked to participate in research groups to evaluate wait times. The wait times group consists of 10 or more patients and tracks how long they wait in the waiting room prior to admission. A patient can be in only one research group at one time.***

| Task |
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| 1. Complete the UML Class Diagram in Visual Paradigm |
| 1. When complete, your instructor will assign a grade based upon the following criteria out of 10 points  * Diagram contains the correct classes with intuitive names (2) * Fields are correctly indicated for each class with datatype (1) * Inheritance is correctly modelled (2) * Whole-to-part relationships are correctly modelled (2) * Associations and multiplicities are correct (2) * All formatting conventions have been followed for a UML class diagram (1)   Students will receive a mark out of 10. |
| 1. **If you do not have time to have your class diagram evaluated during the lecture, please put the diagram image in the ICE 3 DropBox on SLATE before the end of class time.** |