**SYS366 Practice Exam**

**Case Study**

*Richards’ Riding Stables* is a family owned Equestrian School and Stabling facility, located north of Aurora Ontario. The Equestrian School has 10 horses and ponies that are used in lessons and the Stable have room for 20 additional Boarder stalls, which are leased to clients for their horses. Included in the lease, is daily cleaning of the stall, Breakfast and Supper for the horses, daily turnout to grass paddocks with continuous access to hay and water. Richards’ Riding Stables guarantees that horses placed in their care will never be hungry!

Mr. Richards, a retired bookkeeper, owns the business and employs his two daughters, Kate and Susan as Equestrian Coaches and his grandchildren, Edward, Brian and Clark as stable staff. Up until recently, Mr. Richards kept track of all of the Riding Sables’ transactions using his computer and manual ledgers.

Faulty wiring caused a fire in the office and Mr. Richards computer and records were destroyed. Mr. Richards has decided that he’s best to implement a new computer system to replace the manual records, so that with proper backups, important information will never be lost again.

Mr. Richards would like the system to replace his manual ledgers. He would like to input a budget at the beginning of the year and track expenses against budget items. He requires the ability to summarize bills by supplier and by expense type. Mr. Richards also must be able to track income by income type. Boarding and lesson payments are the largest sources of income for the business. Mr. Richards also rents some of his fields to a tree farm and stores boats and trailers on another field.

Kate and Susan would like an online scheduling system booking students and assigning horses and tack (equipment) to the student in one hour lessons, avoiding overlap of the indoor area and outside riding ring. Students would like to contact Kate and Susan requesting lessons and be able to see their schedule. Students and Customers would like to book services online, requesting blankets be put on/removed from their horses and requesting appointments with the local farrier (Blacksmith) and Veterinarian.

The Stable Staff would like to see the list of customer/student requests and be able to provide feedback.

*Richards’ Riding Stables* have approached your company to develop a web application that will allow them to complete the tasks outlined above. You would like the opportunity to develop this system and have full faith in your team’s ability to produce it completely and in the time allotted.**Part A. Problem Statement**

Please identify the problem that this company is facing.

**Part B. Key Stakeholder and User Needs**

Aside from Kate and Susan requesting a lesson scheduling system, identify the rest of the stakeholder needs and list the stakeholders that have identified the need.

**Part C. System Use Case Diagram**

Create a System Use Case Diagram outlining the features that would be used to cover the requested needs

**Part D: Systems Use Case Scenario**

Write a systems use case specification with a single scenario for the feature, Maintain Lesson Schedule. This feature will be used by Kate and Susan to schedule lessons for students. The scenario must allow the Kate and Susan to easily book lessons for all the students in one family at a time. The scenario must allow for a horse and equipment (also called Tack) to be added to each lesson.

**Part E: Classes and Data Used**

Organized the information that you recorded above to clearly identify which attributes belong to which classes.