** NATIONAL UNIVERSITY OF COMPUTER & EMERGING SCIENCES**

***Object Oriented Analysis and Design CL-309***

**QUIZ#01**

Student ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Time Allowed: 40 Minutes

Date: 27th Sep, 2018

**(Left Seated) Develop the UML USE CASE diagram for the following system.**

**LUMS** University wants you to build a software system that will be used to assist them in the admissions process. The software system will allow application entry personnel to enter the application details, as much as available from an application form filled by a candidate. The financial processor will then check to make sure that the application processing fees has been accepted and the payment by check or credit card has been cleared and will mark the application as eligible for further processing. The application entry personnel may also at any time update the scores (like GRE, TOELF, etc.) for the student. An application evaluator will be able to view all applications that are ready to be evaluated. An application is ready for evaluation if all scores have been received and the application fees have cleared. The evaluator may evaluate the student based on several criteria like GRE score, TOEFL score, GPA, etc. More criteria may be added to the system later and an evaluator can select between these. Some of the criteria may be marked as core, meaning one of these will be required. Other criteria may be optional and any number of these may be used in evaluation. Once an application is evaluated, the personnel may either accept or reject the applicant. A letter as appropriate may be printed at any time with the date of approval or rejection. At any time, administrative personnel may check the status of an application. While checking the status of an application, they do not have the privilege of modifying any information. A given university employee may work in one or more of the above capacity and will have different privilege in the system. New employees (account id and password) may be added, their privilege or access level may be changed or their accounts disabled by an administrative account (which again is a privilege in the system, i.e., anyone could be assigned that status). Whenever an entry is modified, the time of modification and the person modifying it is noted automatically by the system.

**(Right Seated) Develop the UML USE CASE Diagram for the following system.**

**Airline Management System**

Mr. Tod Airlines runs regular flights between Ankara and 7 other cities in Turkey. There are several daily numbered flights on regular schedule. The reservation system keeps track of passengers who will be flying in specific seats on various flights., as well as people who will form the crew.

For the crew, the system needs to track what everyone does, and who supervises whom. There are three kinds of employees in the organization, pilots, hosts and ground personnel. Only the ground personnel use the reservation system. But the potential passengers may do reservations using the system’s web interface.

There is also a frequent-flier program which shows flight points to frequent passengers and they may use their points during reservation.

Mr. Tod Airlines personnel sometimes fly as passengers in scheduled flights. For their reservations, the system only requests their personnel id number. Their other info is already in the system. They are given points for each flight that they participate as a crew. Then during their reservation, they may use these points against their purchases. Besides, there is a regular 50% discount for airlines personnel and their families.

The system should be able to help to perform at least the following functions:

* Creating a new flight or modifying the attributes of a flight
* Searching for a particular flight
* Canceling a flight on a specific day
* Making or canceling a booking on a particular flight

Reporting names of crew and passengers (marking Mr. Tod personnel separately) on a particular flight and their payment type/discounts (cash, credit card, flayer points, crew points, etc.).