**Tutorial 6**

1. Company ABC has been contacted to develop software that automates the following scenarios: [CO4]

In the system, the passenger can perform check-in in the form of normal check-in or automated check-in or express check-in. **Normal check-in** is for passengers with luggage; **Express check-in** is for passengers without luggage and **Automated check-in** is for passengers without luggage who have done the web check-in already. Passenger can change between the Express and Automated check-in at special kiosk available at airport.

In addition to the passenger, who represents travelers, there is the check-in representative. The check-in representative is a person who is not the actual passenger, but an agent of the passenger. The check-in representative has the task of performing the check-in with the ticket of the passenger. The check-in procedure includes submitting the ticket, baggage check-in, seat reservation, and issuing and handing over the boarding pass. Passengers who only have hand luggage can use express check-in wherein no baggage check-in is performed. During boarding, the boarding pass of the passenger is verified at the gate. Automated check-in is conducted without the help of a check-in clerk, directly at a machine (screen) where bag cannot be checked in. The passenger walks to the gate and presents his or her boarding pass. The check-in representative can perform a normal check-in, but is not able to perform express check-in and automated check-in.

If we take a closer look, we notice that a passenger often travels with luggage. Baggage transportation is responsible for loading luggage into the airplane. Baggage transportation is carried out by an independent organization, known as a handling agent. Consequently, it is considered an actor, more specifically, an outside service provider. It does not matter that individual employees of the partner enterprise perform these tasks. Ten minutes before a flight leaves, baggage transportation requests a passenger list from passenger services, which includes every passenger who checked in, but did not board the airplane. On the basis of this list all affected luggage will be unloaded again from the airplane. If the flight is an international flight, the customs authorities of the country in which the destination airport is located also request a passenger list.

* Draw the class diagram with dependencies among classes for the given scenario.

1. Construct a use case diagram for a library management system. The system is used by the librarian, the assistant librarian and the clients. [CO4]
   1. The librarian, can add books, delete books, add clients, delete clients, list books, list clients, check in/out books
   2. The assistant librarian has all the functionality of the librarian except for add/delete for books and clients
   3. Clients may only check in/out books