

# **Object Oriented Analysis and Design**

## **UML Use Case Diagram**

### **Exercises**

Use Microsoft Visio, Visual Paradigm or Draw.io to draw a UML use case diagram for the following scenarios.

1. In a library, the members borrow and return books. Members can borrow up to six books at a time. Members can also renew a loan up to three times. Librarians can view the list of all books (title, author and ISBN), and the list of current loans (book title, member id, member name, loan date, return due date and number of loan renewals).
2. An author will fill an online form providing the name, correspondence address, email and the title of the paper. The system will validate the data and if correct it will allow the author to submit the paper. Once stored in the system, it will send a confirmation with a reference number to the author. Authors can submit as many papers as they like, until the deadline for the conference. Referees are allocated through the system, and they can view their allocations as well as the relevant papers that need to be reviewed. After the reviewing, they will submit the decision to the system, where authors may view it.
3. The organization offers a variety of courses in a variety of areas such as learning management techniques and understanding different software languages and technologies. Each course is made up of a set of topics. Tutors in the organization are assigned courses to teach according to the area that they specialize in and their availability. The organization publishes and maintains a calendar of the different courses and the assigned tutors every year. There is a group of course administrators in the organization who manage the courses including course content, assign courses to tutors, and define the course schedule. The training organization aims to use the Courseware Management System to get a better control and visibility to the management of courses as also to streamline the process of generating and managing the schedule of the different courses.

