TD N° 1: Functional and Non-functional requirements

Exercise 1:

We attend to develop an application for managing the final year projects for Master's students in the computer science department. The application must allow a registered lecturer to post a topic. A registered student has the possibility to consult the description of a subject as soon as it is published. He can then fill out a list by choosing five different subjects listed in order of preference. Heads of specialties must validate subjects before they are accessible to students. The assignment process must be done automatically according to the ranking of the students. Unassigned students (none of the five chosen subjects are assigned to them) must be assigned manually. At the end of the semester, lecturers must validate the defense authorization of their students for the defenses to be scheduled. A jury composed of three teachers must be appointed for each defence. At the end of each defence, a mark must be assigned to each student.

Questions:

1- Identify any inconsistencies and gaps in this statement.

2- Suggest from this statement four user requirements.

3- Suggest system requirements to cover the user requirements proposed in the previous question

Exercise 2:

We have these three systems:

- An airline ticket reservation system must allow users to search for flights, choose their seat and book tickets.
- An inventory management system must allow users to add, modify and delete items from inventory
- An instant messaging system must allow users to chat in real time, send messages, images and files

Questions:

1- Suggest the functional and non-functional requirements for the above systems.