

## **PRINTER MACHINE AT A UNIVERSITY CASE**

### **Functional requirements:**

1. The printer machine's system must keep track of the ink level.
2. The printer machine's system must display an error in case of insufficient ink.
3. The printer machine's system must display an error if it runs out of paper.
4. The printer machine's system must check if its free at the moment.
5. The printer machine's system must check if the balance is enough.
6. The printer machine's system must save the configuration for the prints.
7. The printer machine's system must manage the print queue.
8. The printer machine's system must display an error in case of insufficient balance.
9. The printer machine must print the file.

### **Non-Functional Requirements:**

1. The system must be higher performance (dust-proof, anti-theft, long service life, low failure rate, simple maintenance, low maintenance costs, good customer purchase experience, and good service quality)
2. The system must be higher reliability
3. The system must be highly available

### **Use cases:**

#### **1. Access to the print server.**

The student must open the browser enter the address of the server and access using his id and password.

#### **2. Upload the print file**

The student must search for the file and upload it to the print server.

### 3. Select the configuration of the prints

The student selects the printing properties such as the number of copies, the type of paper and whether it is color or black and white.

### 4. Check the balance.

The student verifies if the balance is sufficient for the number of copies after deduction, if it is not enough, he must add more.

### 5. Finish and log out.

The student clicks the finish button to close the session in the print server and send the document to the queue.

### 6. Scan the id card in the printer machine.

The student scan his/her id card to access the printer.

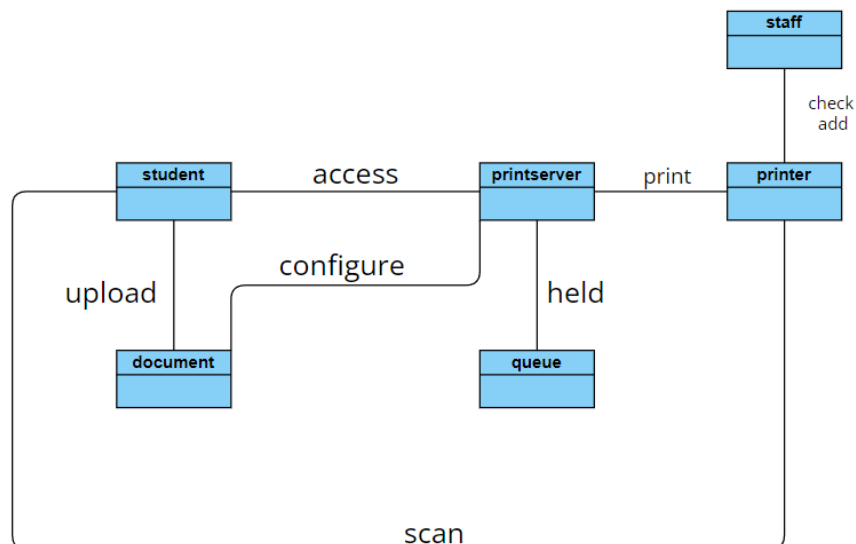
### 7. Check for ink level and paper in the printer.

The student verifies that there are no warnings about lack of paper or ink. If they occur, you should call the staff responsible for the printer to solve it.

### 8. Print the file.

The printer prints the file with the previously selected properties.

### Objects y relationship diagram



## Class diagram

