SE 216 – SOFTWARE PROJECT MANAGEMENT
REQUIREMENTS DOCUMENT

PROJECT NAME: ECOLIB

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REQ. #	FUNCTIONAL REQUIREMENTS
1	The images taken from the cameras and the images in the database of the users who try to enter the turnstile by scanning a card or QR code should be compared and rejected or approved.
2	Users should be able to register and log in to the application with their Oasis user information.
3	If an empty table is detected via cameras during the reservation time, the time the table is empty should be calculated. If this period is more than 20 minutes, the table should be shown as empty in the system and the library staff should be directed to the detected table.
4	The occupancy rate of the library must be calculated accurately with the entry and exit data of the library and must be updated on the system.
5	Once the reservation is received, the reserved table should be colored in the application and closed for reservations.
6	In the application interface, available tables should be colored green, occupied tables should be colored red, and tables not available for reservation should be colored gray.
7	The application must allow changes to the reservation until 10 minutes before the reservation time.
8	In the event of a cancelled reservation, users must be notified that the reserved table is available.
9	When users create a reservation, the application should send a confirmation message and offer the option to add the reservation information to the calendar.
10	The application must detect users who exceed the reservation time by 15 minutes and restrict these users for the specified period.

11	Users should be offered language options in the application settings.
12	On the interface, desks with computers should be specified separately from other desks.
13	Access to the application should be restricted for users who do not comply with the rules and are restricted.
14	If users logging into the application enter the wrong information 3 times, the user should be asked for verification via SMS or e-mail.
15	The application should send a reservation reminder message to users 30 minutes before the reservation time.
16	It should be an informative guide for users to understand and use the reservation system effectively.
REQ. #	**NON-FUNCTIONAL REQUIREMENTS**
1	The system should be able to work uninterruptedly 24/7.
2	The system should be able to restart itself within 3 minutes at the latest when it encounters a situation such as a crash.
3	The turnstiles at the entrance of the library and the image processing system should work in an integrated and fast manner.
4	The application should be user-friendly, offering a simple interface so that students can easily make a reservations.
5	The access control system must have security measures against unauthorised entry.
6	Student information and reservation data must be stored securely.
7	Only administrators should have access to system data except in exceptional circumstances.
8	The application should be easily adaptable to the growing number of users and library spaces in the future.
9	It should be ensured that it is able to work on devices with different hardware.
10	Regular maintenance and support must be provided to keep the application running smoothly.