

# **CSE347**

## **Information System Analysis and Design**

**Nishat Tasnim Niloy**

Lecturer

Department of Computer Science and Engineering

Faculty of Science and Engineering

# Topic: Scenario for Exercise

## Midterm Exam

# House Renting Website

A company named Star Soft Inc. is working on a new project to build an Online House Rental System. They gathered functionalities from the stakeholders and now working on the system design. According to the requirements, there will be two types of **Users- Owner and Tenant**. The ***NID, name, phone number, and email id*** of the owners, as well as the tenant, should be stored in the database. All the users will ***authenticate*** before accessing the system. They can ***update their info*** at any time with the ***approval*** of the **admin**. The owners can ***post the specifications and the pictures*** of their houses. All the **posts** will have the ***post id, owner's id, and content***.

The admin will ***approve the post*** after ***checking its validity***. The tenants can ***search the houses*** and ***check the specifications***. The specifications of a **flat** will be like- ***the number of rooms, bathrooms, balcony, garage service, elevator service, address, utility bills, service charges, total rent, and owner's info***. The owners and tenants both can ***communicate through messaging***. They also can ***report any incident*** to the admin. The ***ID, password, and email address*** of the admin should also be stored in the database as well.

# Marked Info for Use Case Diagram

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# Library Management System

In a library management system, there are three types of users- *librarians*, *members*, and *administrators*. Members interact with the system by logging in to search for books based on title, author, or genre. They can view book availability, place reservations, borrow books, renew borrowed items, and return them. Members also receive automated notifications for overdue items, reservation status updates, or reminders about due dates. Additionally, they can leave reviews or rate books, enhancing the library's user engagement.

Librarians play a central role in managing library resources. They handle book inventory by adding, updating, or removing book records. Librarians also register new members, update member details, and track borrowed and returned books. When members request assistance, librarians can manually override or update reservations and loan periods. Administrators oversee the entire system, ensuring its smooth operation. They manage user access by adding or removing system users, assigning roles, and monitoring user activities. Administrators also generate detailed reports on book circulation, popular genres, and overdue penalties, helping make informed decisions about library improvements.

# Hospital Management System

In a hospital management system patients can register online or at the reception desk, schedule appointments, and view their medical history. The system enables patients to receive diagnostic reports, pay bills, and provide feedback. Emergency patients are handled directly without prior registration. Doctors access patient records, review medical histories, and update diagnoses, prescriptions, or treatment plans through the system. They can schedule follow-up appointments and communicate test requirements to diagnostic staff. Nurses access the system to track patient information, administer prescribed treatments, and update records, such as vitals and progress notes. They also receive task lists for each shift, ensuring proper patient care.

Managers oversee patient registration, appointment scheduling, and billing processes. They also manage hospital resources like room assignments, staff schedules, and insurance claim processing. Pharmacists interact with the system to review prescriptions and dispense medications. They update inventory levels, ensuring the stock of essential drugs.