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Problem Definition & Project Overview

Problem: *Students and faculty at Northeastern have no convenient way to view the occupancy levels in all recreational facilities nor make reservations independently. Recreational staff have to manually assist students and faculty in reserving courts and classes. Maintenance can't plan the best times to service equipment.*

Solution:

This app will **increase utilization and convenience** in facilities by helping users:

- Plan workout schedules and minimize time wasted
- Make reservations without having to call
- View all schedules in one place

This app will **increase effectiveness and simplicity** by providing staff with:

- Less manual booking and reservation work
- Accurate monitoring for maintenance and cleaning

Assumptions & Constraints

Solution

NUview will increase utilization and convenience in facilities by providing critical insight to users, and will increase effectiveness and efficiency for staff.

Assumptions

Northeastern University Boston Campus recreational facilities involved are:
Marino Center, SquashBusters, and Cabot Center

Constraints

- Gathering an adequate amount of information and data to support the application
- Data updates for occupancy levels need to be automated
- The development of the application will need to be outsourced as no IT resources are available internally

Stakeholders



Students and Faculty

- Attend the rec facilities
- Front-end users of the app



Rec Facility Staff

- Work at the rec facilities
- Back-end users of the app



Maintenance Staff

- Maintain equipment at rec facilities
- Front-end users of the app

Personas



Ashley Petan



Age: 22

Occupation: Full-time student

Location: Boston, MA

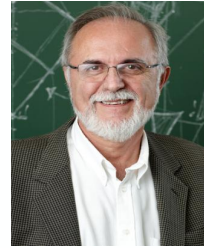
Bio: Full-time student taking 19 credits

Goals:

- Fits workouts into a busy schedule
- Needs courts to practice for team sport but they are not always free



Professor Smith



Age: 45

Occupation: Part-time faculty

Location: Somerville, MA

Bio: Works full-time and teaches part-time

Goals:

- Would like to attend the school gym but has no time to wait for equipment to be available



John Doe



Age: 57

Occupation: Maintenance

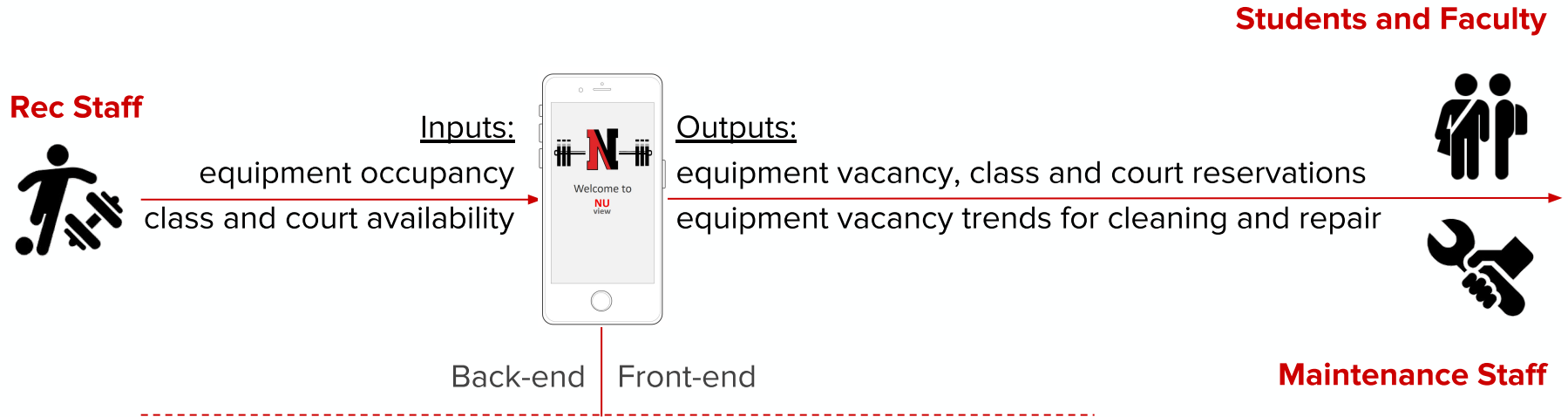
Location: Boston, MA

Bio: A full-time maintenance employee for recreational facilities at NEU

Goals:

- Efficiently fix machines in a timely manner for use by members

Solution



User and Functional Requirements



User Role	Campus Recreation Facility User
Goal U1	To view Building and equipment occupancy levels
U1.1	User selects view occupancy and chooses building and equipment from given options and then hits enter
Goal U2	To reserve Court or Studio room
U2.1	User selects book courts or studio room option on the application homepage
Goal U3	Register a guest
U3.1	User logs in and selects the building the guest wants to use
Goal U4	Register for fitness class
U4.1	User logs in and selects a building

User and Functional Requirements



User Role	Rec Facility Staff
Goal U1	To update occupancy level
Goal U2	Manage court reservations and availability
Goal U3	Submit Work Order for equipment breakdowns

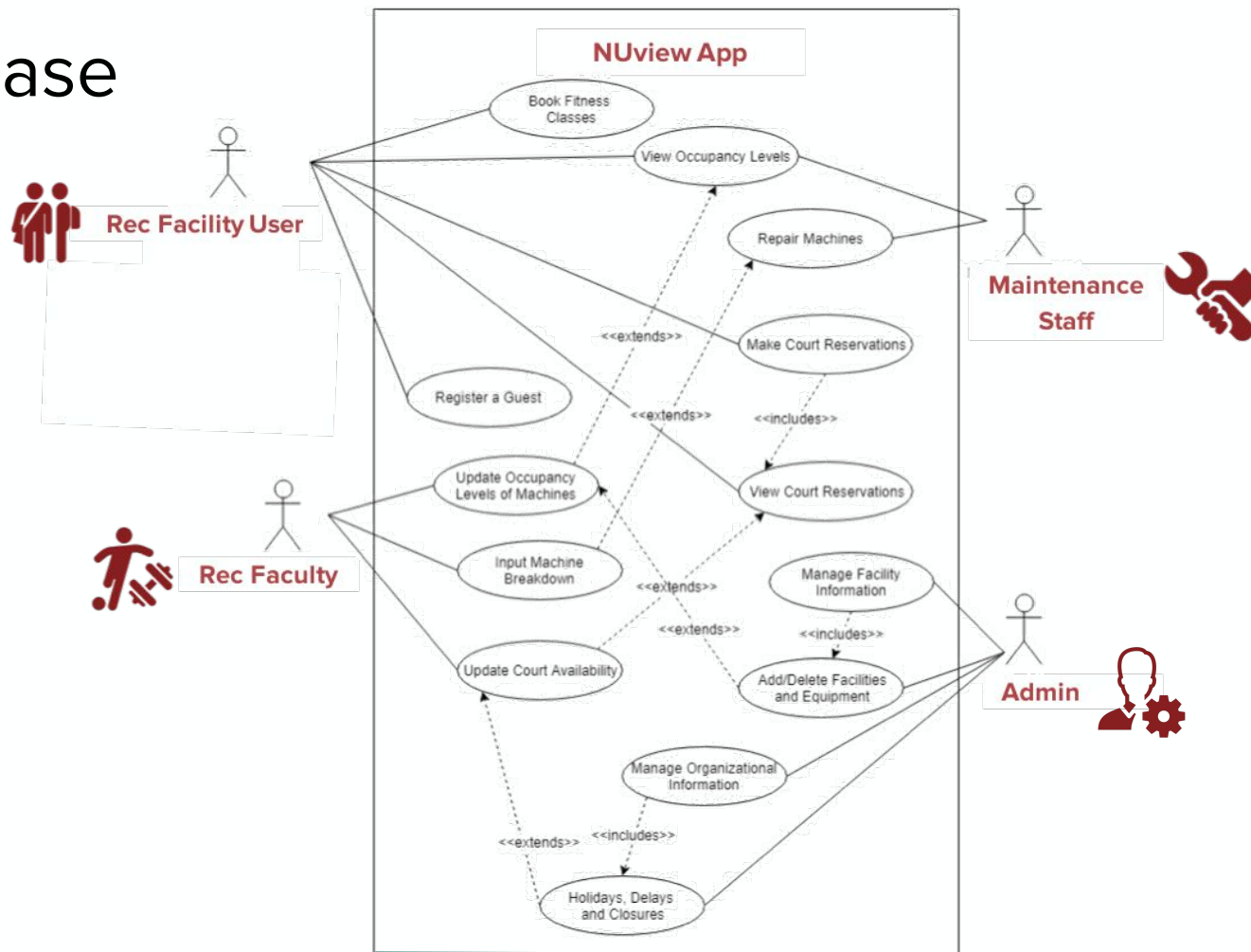


User Role	Maintenance Staff
Goal U1	View maintenance/breakdowns reports
Goal U2	View occupancy levels



User Role	Admin
Goal U1	Add new facilities
Goal U2	Add new equipment to facilities

Use Case



Process Diagram

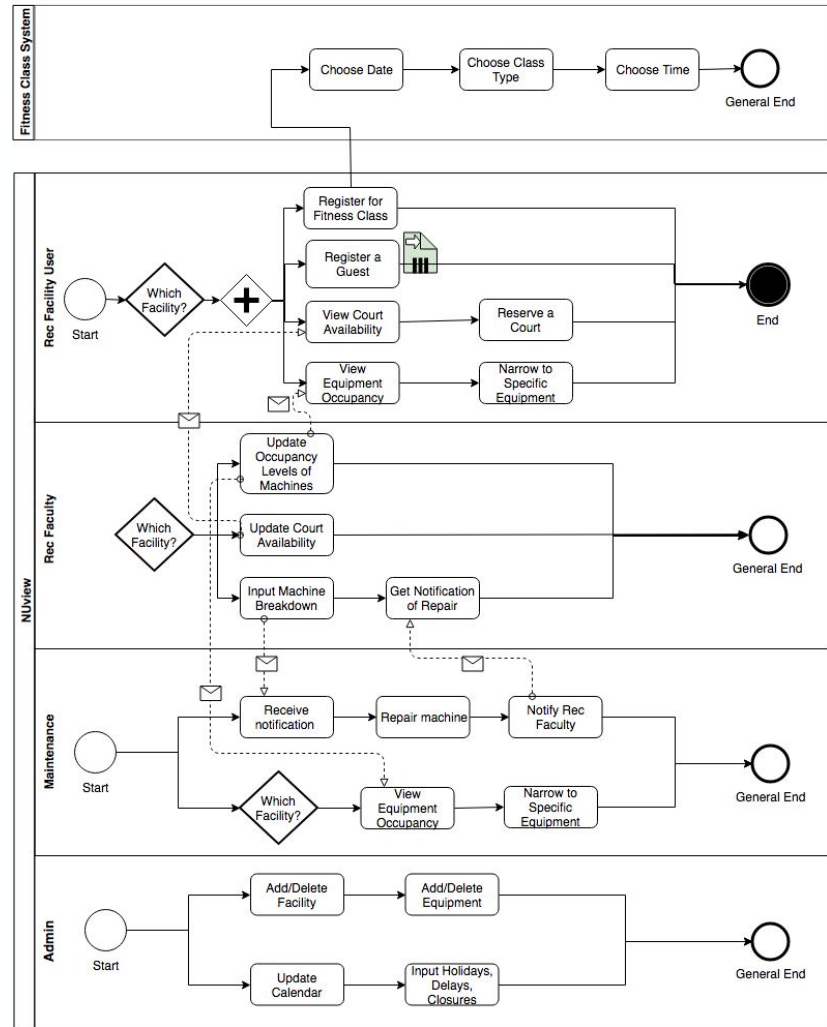
Pool: NUview App

Swim-lanes:

- Rec Facility User
- Rec Faculty
- Maintenance

Pool: Fitness Class System

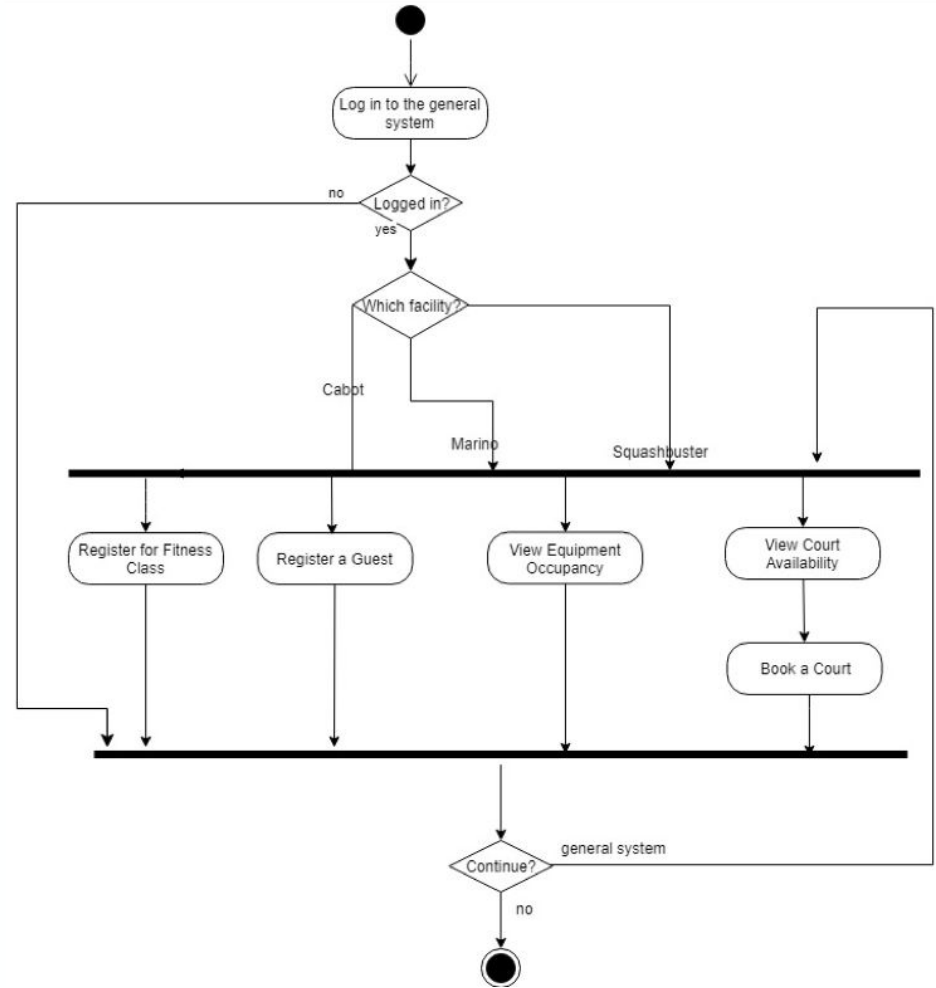
- Separate application; using its functionality



Activity Diagram

Assumption:

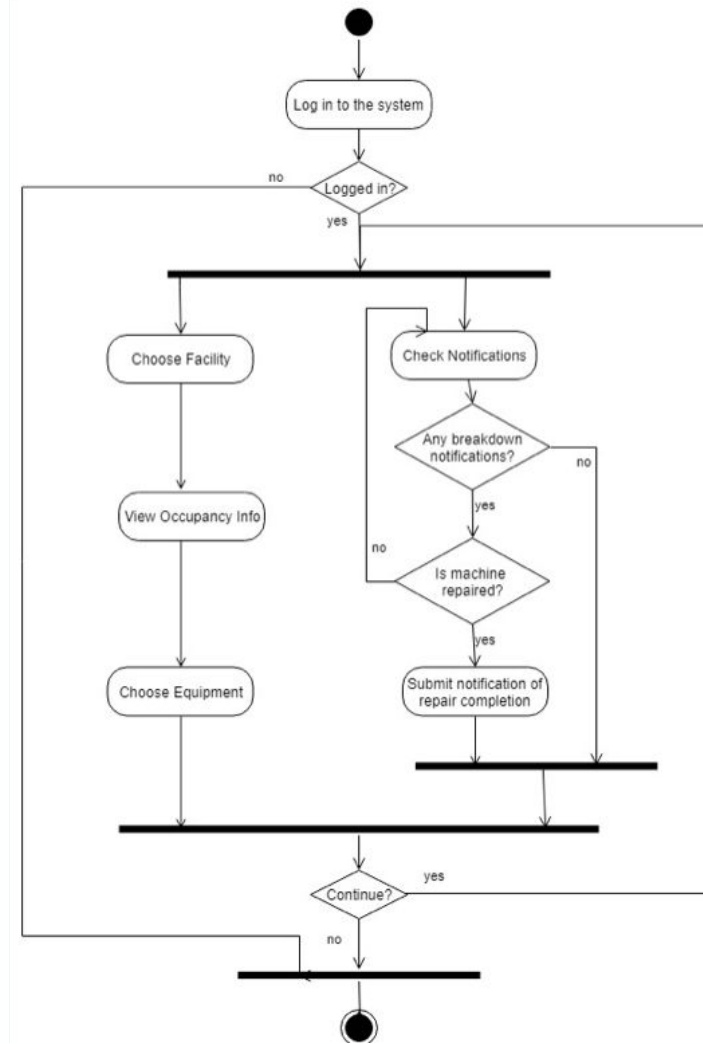
Only showing *Rec Facility User* point-of-view



Activity Diagram

Assumption:

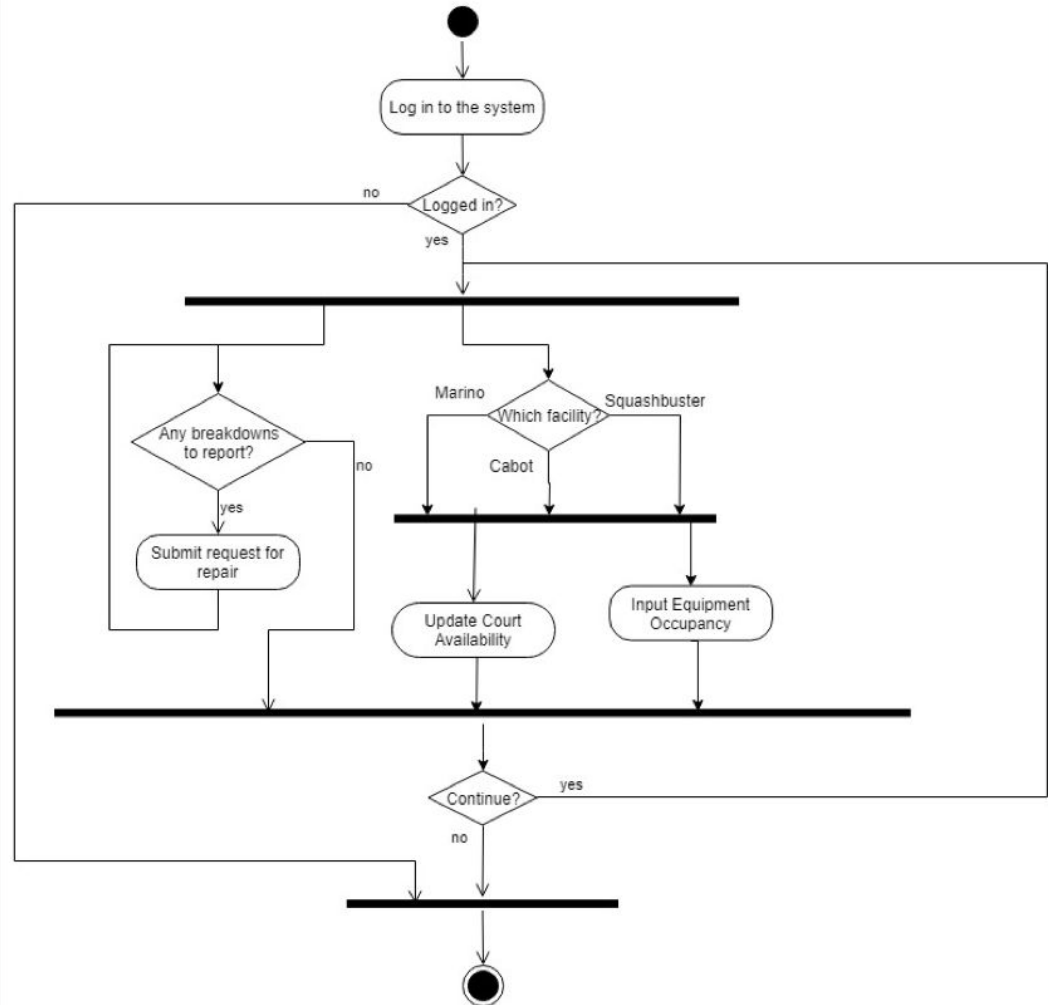
Only showing *Maintenance Staff* point-of-view



Activity Diagram

Assumption:

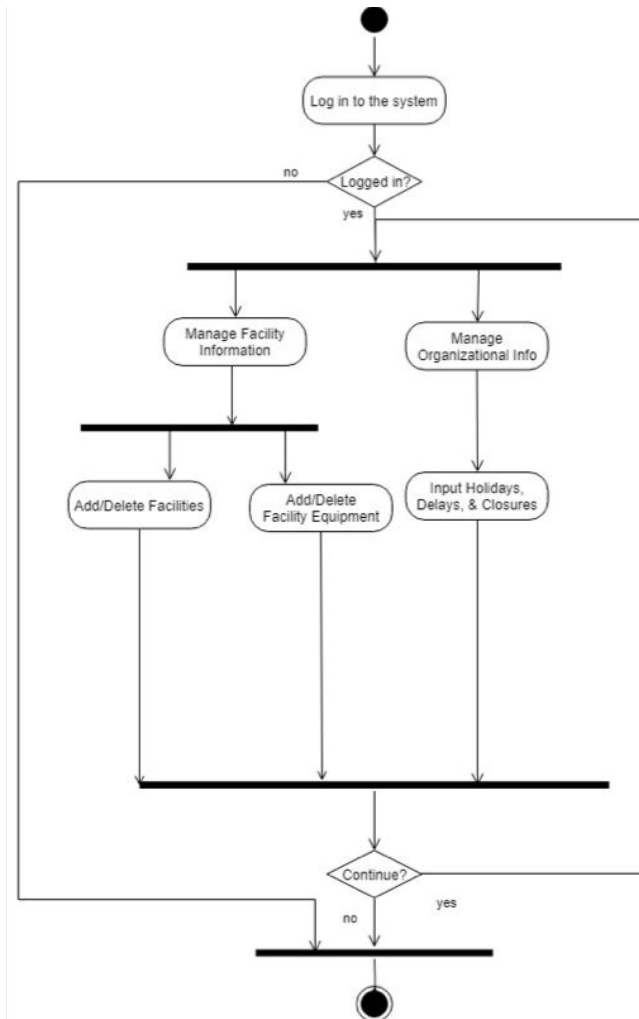
Only showing *Rec Facility Staff* point-of-view



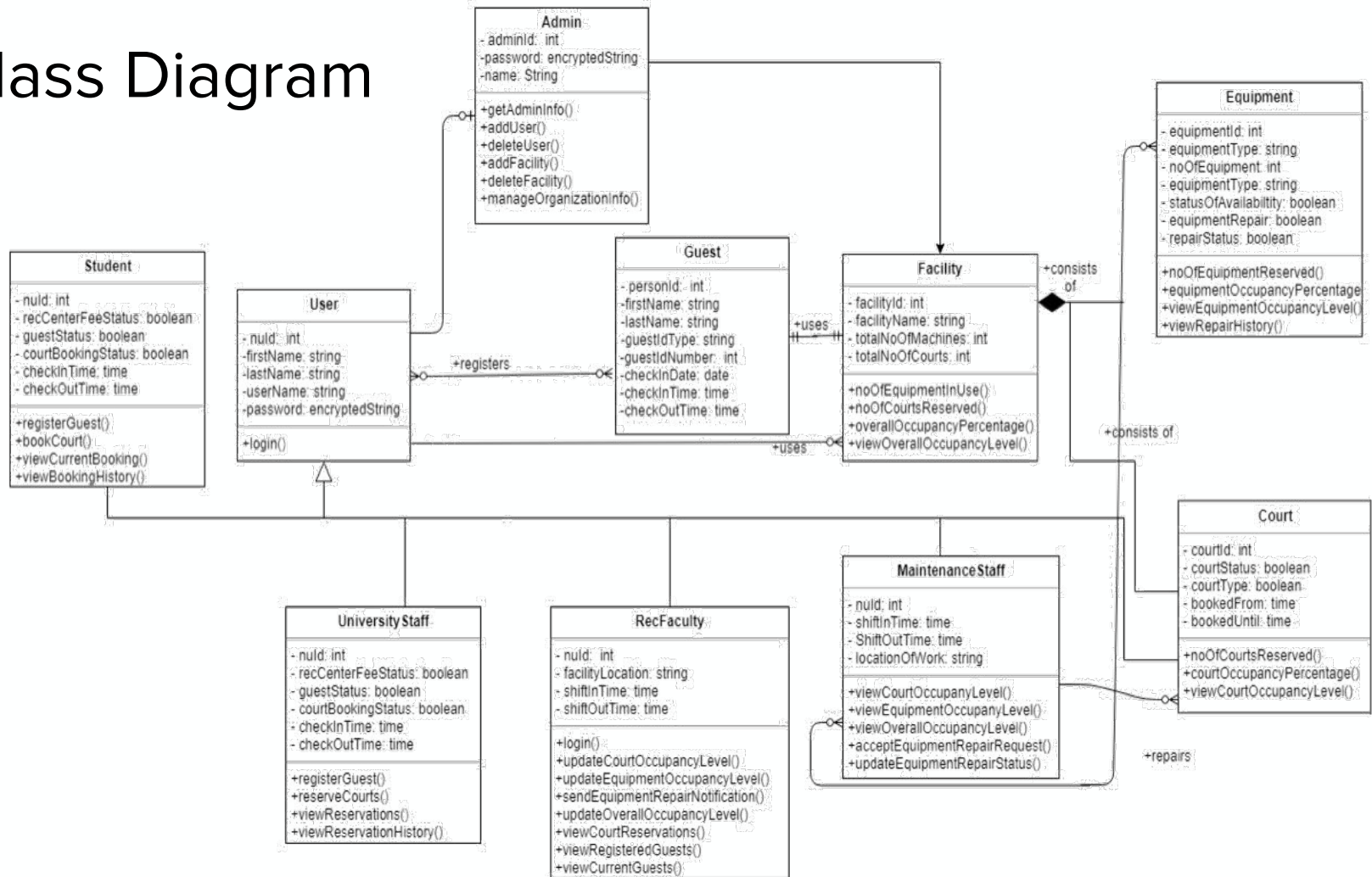
Activity Diagram

Assumption:

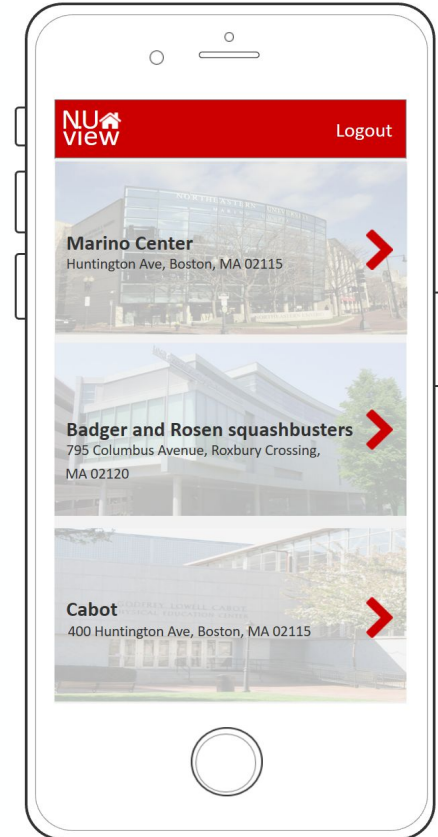
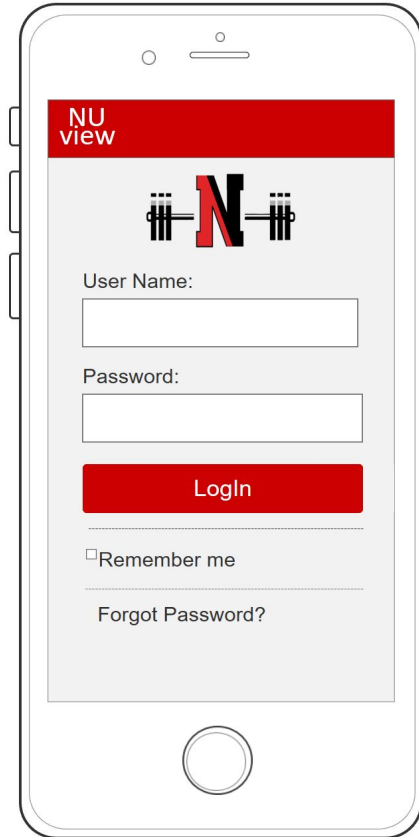
Only showing *Admin*
point-of-view



Class Diagram



Demo of NUview



Thank you!

Questions?

NUview App

