Indian Institute Of Information Technology, Allahabad
BTech (IT) sem 4
SOFTWARE ENGINEERING

SOFTWARE DESIGN SPECIFICATION

for

Occupancy Monitoring System

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1. Introduction

1.1 Purpose

The product hereby referred to as “Project Class”, is a android application developed to monitor the occupancy of the buildings of our Institute.This document will define the design of our occupancy monitoring system. It contains information about scope of the development project, all the design and diagram required for the project.

1.2 System Overview

‘Project Class’ is basically an android-based application for administration to monitor the occupancy of the rooms of the buildings of our institute.

1.3 Design Map

The design of this product utilizes an procedural approach

1.4 Definitions and Acronyms

- IEEE: Institute of Electrical and Electronics
- SDS: Software Design Specification
- Project Class: The name of our android application.

2. Design Consideration

2.1 Operating Environment

The ‘Project Class’ is intended to be operated in an android environment.

2.2 Fault Tolerant Design

Application errors will be handled by common fault detection services (e.g. common C++ exception handling, and error checking on task processing).

2.3 Design Conventions

The ‘Project Class’ design uses the Procedural methodology to have a backend model to predict changes and handle the changes.

2.4 Architectural Design

The software capabilities and requirements specified in the ‘Project Class’ Software Requirements Specification are transformed into programs that will execute on an android. Software items are partitioned into classes and packages using procedural methodology to maximize encapsulation and minimize interfaces. Packages are then built (compiled and linked) into executable programs.

3.System Architecture

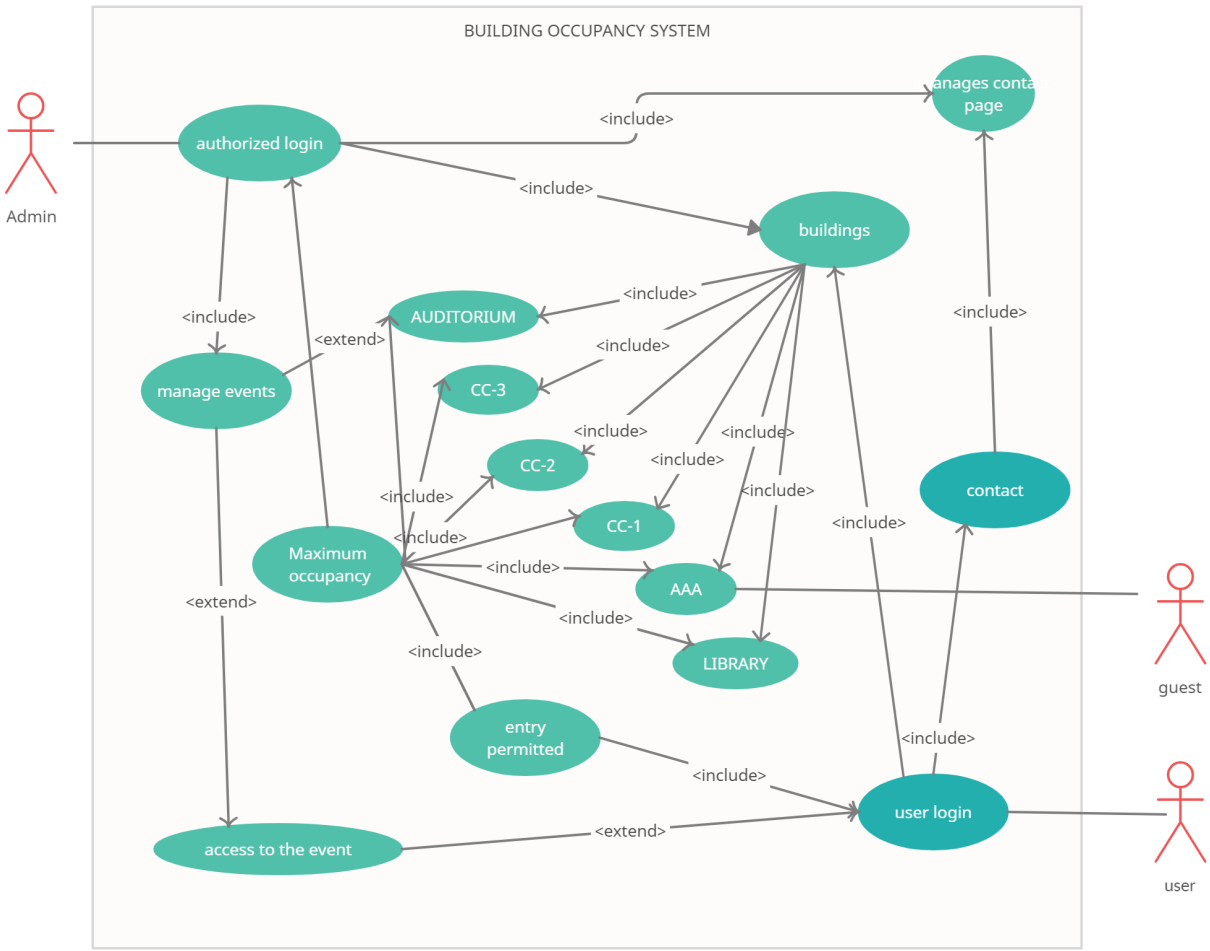
3.1 Overview

‘Project Class’ is basically an android based application which counts the number of persons inside the room of a building through the login process of the app.

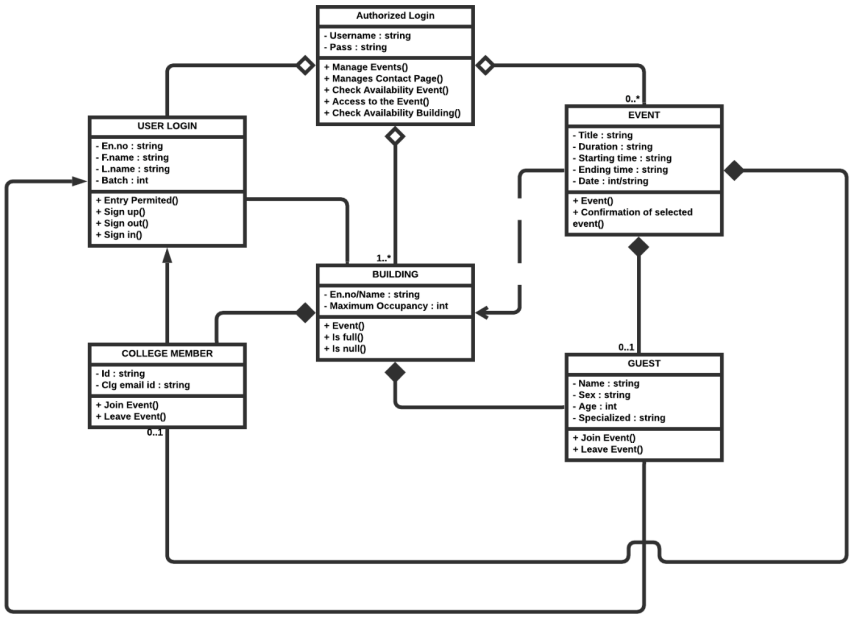
The main purpose of this is to monitor the occupancy of the room of the buildings in our institute.

By admin login through the application, administration can know exact details of the occupancy and they can also know if the building reached its maximum occupancy by this application.

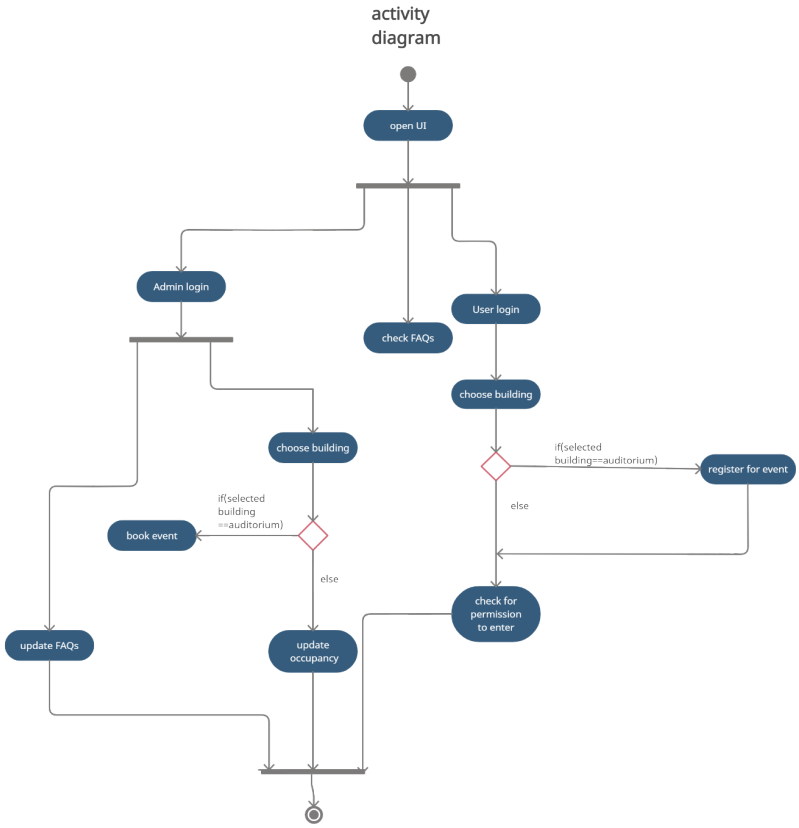
3.2 USE CASE DIAGRAM



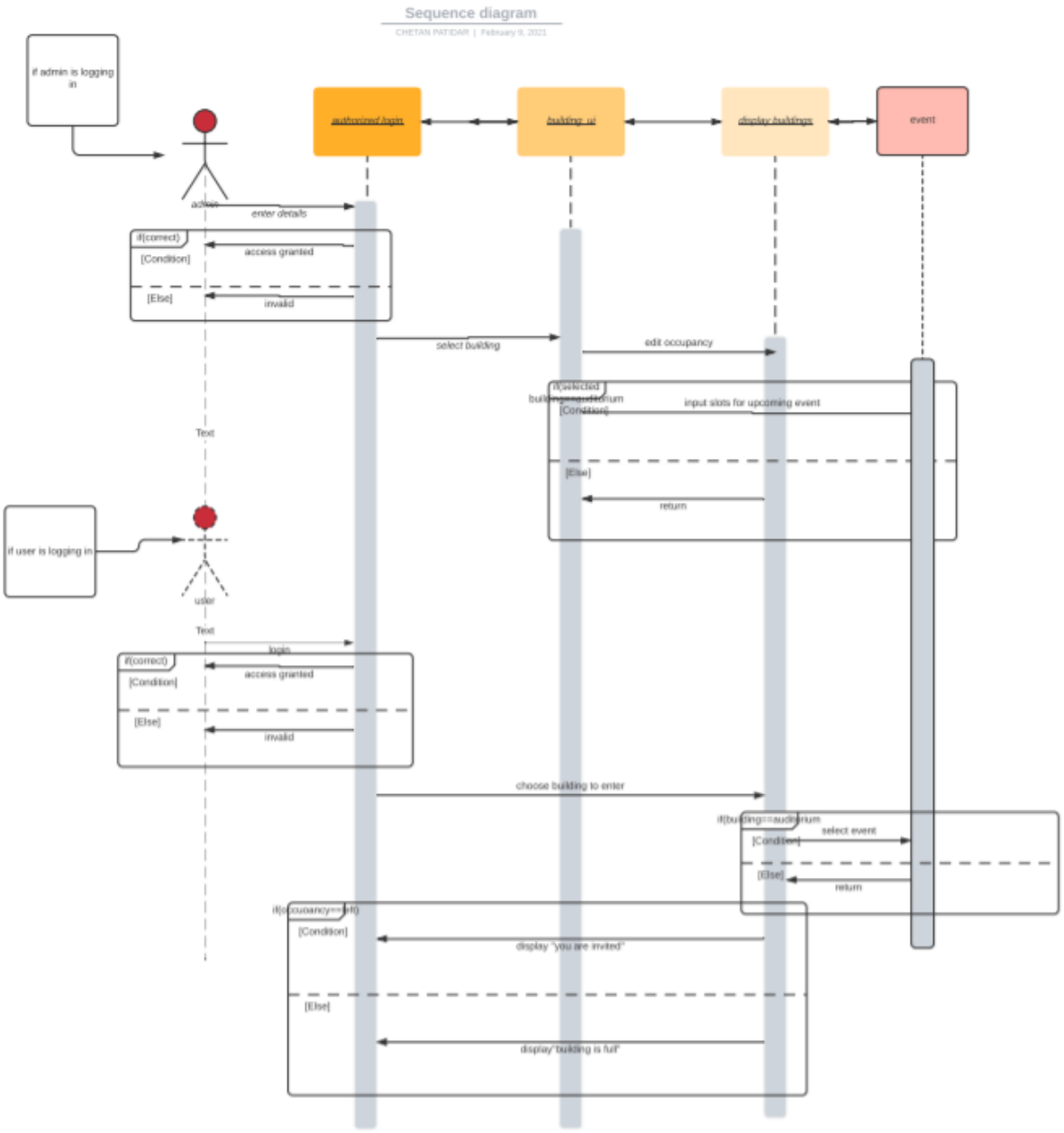
3.3 CLASS DIAGRAM



3.4 ACTIVITY DIAGRAM

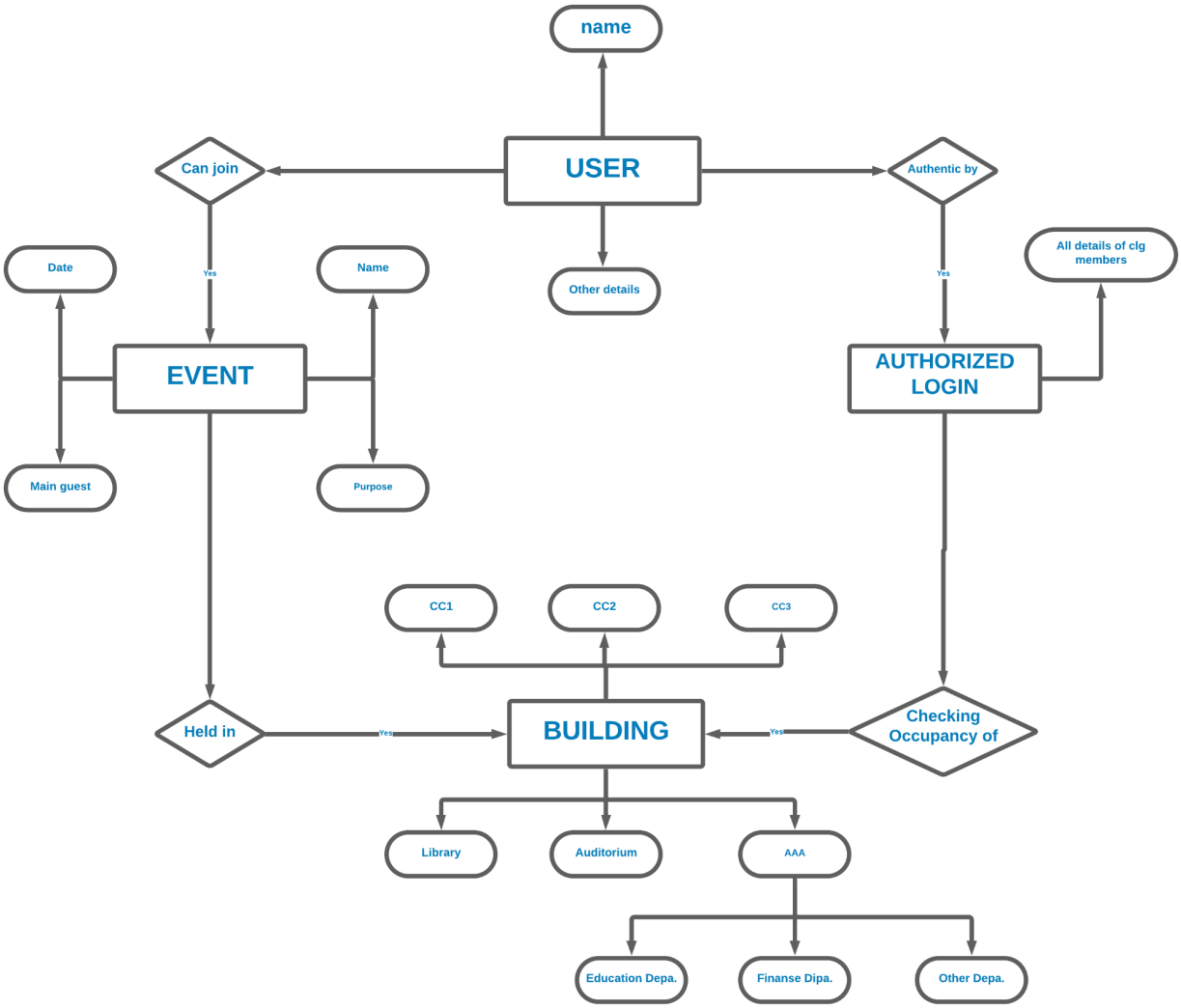


3.5 SEQUENCE DIAGRAM



4. Database Schema

4.1 ER DIAGRAM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USER
Can join
Authentic by
Other details
Yes
Yes
Date
Name
All details of clg members
EVENT
AUTHORIZED LOGIN
Main guest
Purpose
CC1
CC2
CC3
Held in
Yes
BUILDING
Yes
Checking Occupancy of
Library
Auditorium
AAA
Education Depa.
Finanse Dipa.
Other Depa.