# Design Document

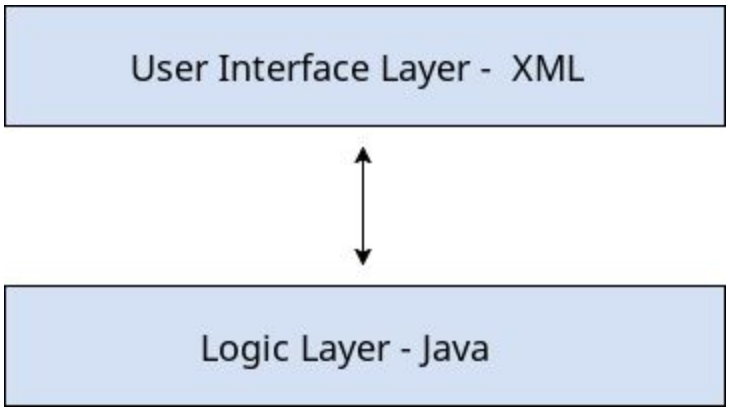
## CSCE 361-Spring 2018

## 1. Introduction

The purpose of this design is to demonstrate the high level architecture and entity  relations, for the UNL Bathroom Finder Class management system. This document will include architecture and entity relation diagrams showing the relationship between different parts of the system. The audience of this document is software engineers and system architects who will be implementing and maintaining the described project.

## 2. Architecture

### 2.1 Introduction




The high level architectural design of the system will be a layered model. The logic layer of the model will be the logic layer, written in Java, will provide the necessary functions in the application in order to pass information to the user interface. The user interface layer will then create layouts based on the information it receives from the logic layer.

### 2.2 Modules

#### 2.2.1 Logic Layer

The logic layer is responsible for performing all necessary business logic to Java objects in the system. This module will supply the desired information to the user interface layer such as buildings, floors, and bathrooms.

#### 2.2.2 User Interface Layer

The is the primary layer that the user will interact with and is responsible for generating the user interface. In this layer the user will be able to choose which building, floor, and bathroom they wish to view.
Each user interface will be created by XML, which generates layouts based on what information is provided by the logic layer.

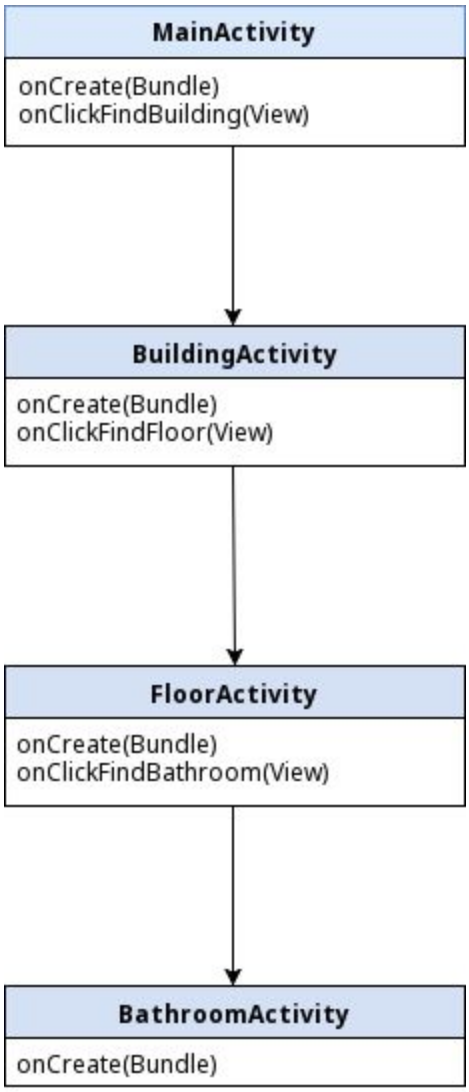
## 3. Class Diagrams

### 3.1 Java Classes

The system will be using Java to create classes to handle the information which is handed from the user interface, and then hand back the information back to the user interface based on the information it is given.

#### 3.1.1 Java Class Information

Each Java class will be an android activity that will decide which layout to use and tells the application how to respond to the user. Each class will have an onCreate function to first create the activity. Each class besides the BathroomActivity class will also have an onClick function that responds to which choice the user selects.



### 3.2 User Interface Layer

The user interface is comprised of layouts which are generated based on which activity is in use in the logic layer. When first opening the application, the user will be greeted at the homescreen which offers a selection of buildings to choose from.

When a building is chosen the user will be brought to a new page which presents a picture and description of the building, as well as floors in the building which the user can select.

Once the user selects a floor, the user will be presented with a page that has a list of bathrooms to choose from. When a bathroom is selected, a new page will be generated that has a description of the bathroom.