Ahsanullah University of Science and Technology
Department of Computer Science and Engineering

CSE3224 : INFORMATION SYSTEM DESIGN AND SOFTWARE ENGINEERING LAB, SPRING 2020

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LAB SECTION: B1

GROUP: 04

PROJECT NAME: BACHELORS HOME

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Introduction To Project

As we all know that for education or seeking for hope and job people and students comes from rural place to town. So, sometimes it became to difficult to find a suitable room/seat. The number of university halls are not sufficient enough for both boys and girls. So, parents or guardians lives in anxiety to send their child for higher education in other town. So we try to resolve this problem by using the idea of room sharing. Here we make a website based system try to help bachelors to find their suitable room or share room with suitable room-mate through our website from anywhere , everywhere. We hope our application will help to find suitable seat and room-mates for bachelors and reduce the anxiety of parents and if that happened , our purpose and objective will be fulfilled.

Data Flow Diagram

As we all know that, a data-flow diagram is a way of representing a flow of data through a process or a system (usually an information system). The DFD also provides information about the outputs and inputs of each entity and the process itself. A data-flow diagram has no control flow, there are no decision rules and no loops. Specific operations based on the data can be represented by a flowchart .It shows how information enters and leaves the system, what changes the information and where information is stored. The purpose of a DFD is to show the scope and boundaries of a system as a whole. It may be used as a communications tool between a systems analyst and any person who plays a part in the system that acts as the starting point for redesigning a system.

It is usually beginning with a context diagram also known as level 0 of the DFD diagram, a simple representation of the whole system with a single process with no data store. To elaborate further from that, we drill down to a level 1 diagram with lower-level functions decomposed from the major functions of the system. This could continue to evolve to become a level 2 diagram when further analysis is required. Progression to levels 3, 4 and so on is possible but anything beyond level 3 is not very common.

Please bear in mind that the level of detail for decomposing a particular function depending on the complexity that function.

An Overview of Elements in Data Flow Diagram of Our Project

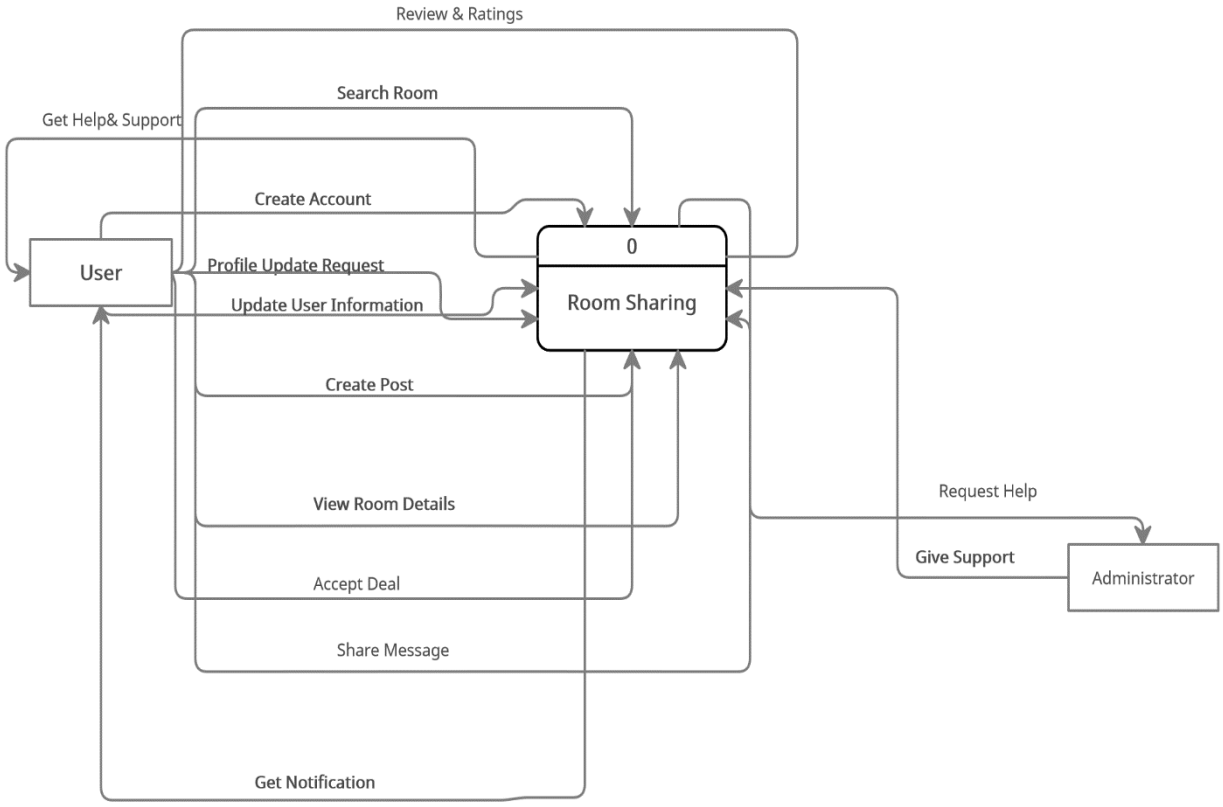
1. **Process**
    - Registration
    - Profile
    - Update Profile
    - Advertisement
    - View Advertisement
    - Notification
    - Meeting
    - Help & Support
    - Generate Review & Rating
2. **Data Flow**
    - Create Account
    - User Information
    - Profile Update Request
    - Profile View
    - Update User Information
    - Create Post
    - Search Room
    - Room Data
    - View Room Details

- Choose Room
- Accept Deal
- Get Confirmation
- Share Message
- Contact
- Get Help And Support
- Review and Ratings

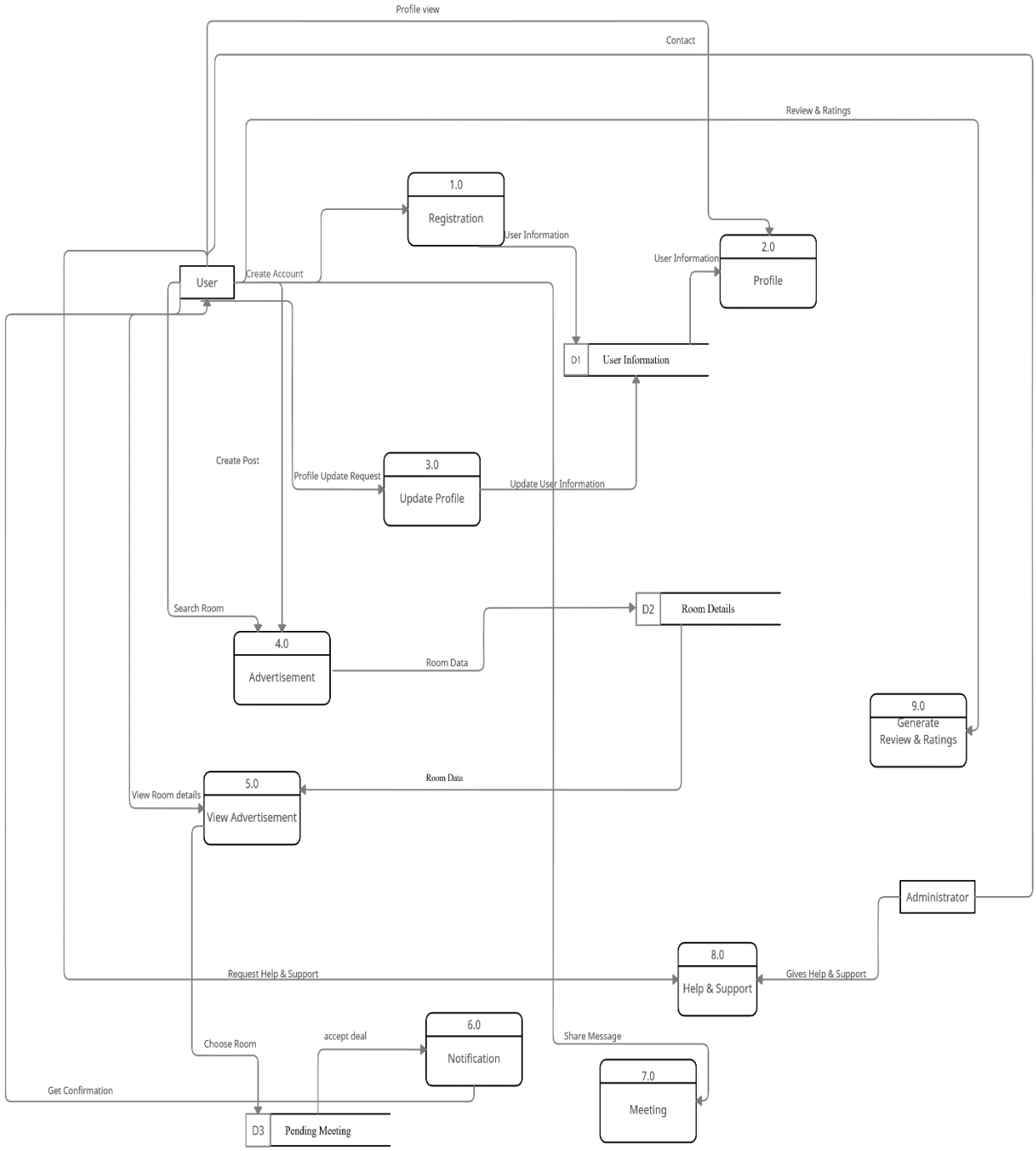
3. **Data Store**
    - User Information
    - Room Information
    - Pending Meeting
4. **Source/Sink**
    - User
    - Administrator

Data Flow Diagram

Context Diagram



Level-0 Data Flow Diagram



Class Diagram

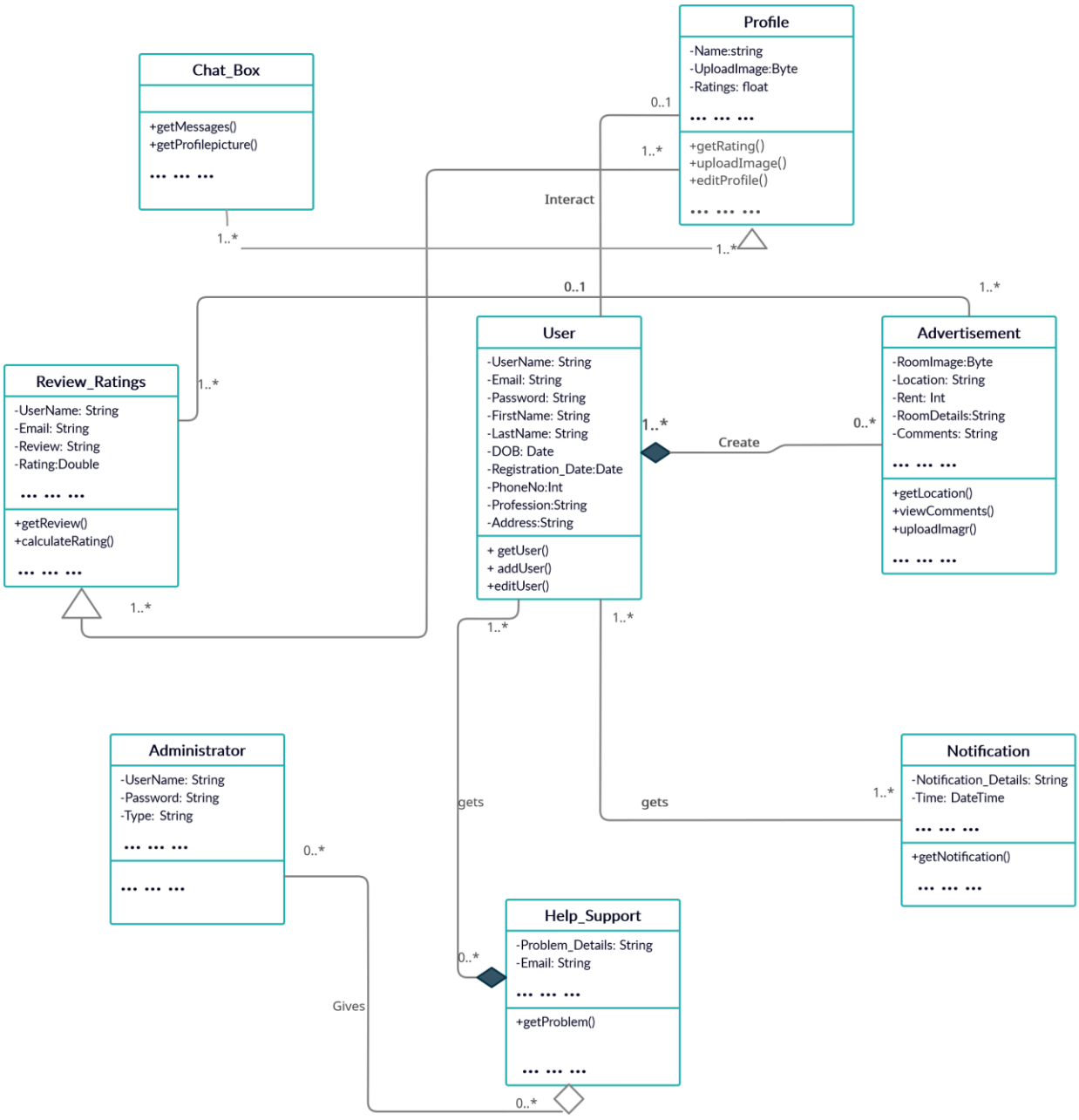
UML CLASS DIAGRAM gives an overview of a software system by displaying classes, attributes, operations, and their relationships. This Diagram includes the class name, attributes, and operation in separate designated compartments.

Class Diagram defines the types of objects in the system and the different types of relationships that exist among them. It gives a high-level view of an application. This modeling method can run with almost all Object-Oriented Methods. A class can refer to another class. A class can have its objects or may inherit from other classes.

Class Diagram helps construct the code for the software application development. The purpose of the class diagram can be summarized as:

1. Analysis and design of the static view of an application.
2. To describe the responsibilities of a system.
3. To provide a base for component and deployment diagrams.
4. Forward and reverse engineering.

Class Diagram



Conclusion

Data flow diagrams (DFDs) offer a graphical technique for summarizing the movement of data between the processing steps that occur within a business process. They isolate the collections of data, or data stores, which accumulate during a process, and identify the sources of data that arise outside process boundaries. The Data Flow Diagram will definitely help us to see the inner mechanism of our application and meet the requirements. The Data Flow Diagram will help us to understand what our application needs, what path should we follow, what way our data will be utilized. Data Flow Diagram is an important step of Software Development Life Cycle. The information we will obtain from here will greatly help us to redesign our application and for that, we have prepared a Data Flow Diagram with Context Diagram and Level-0 Data Flow Diagram to show how our application will function when it is fully completed.

The Class Diagram will help us to analyze the static view of our application as well as design of the static view. It will help up to describe the responsibilities of our system. This class diagram will also help us to provide a base for component and also deployment diagrams. Mostly, this diagram will help us to forward and reverse engineering our application.