Project Report
CSE 311L
Database Management System
Section 9

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North South University

Submitted to: Sajid Ahmed

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Project Name:

Online Escape Room Booking System

Introduction:

Online escape booking system is a web portal where you can book reservations in advance, know your timing, watch the various themes and read reviews for the same. You can know everything about a room and its show rates and show time just sitting on your couch. You just need to do is just go to our web portal for the Online Escape RoomBooking System and register yourself and gain access to all the features and modes provided by the services. Online Escape Room System in PHP is a very user-friendly project and can be accessed from anywhere and takes away the need to go to physical outlets.

Technology Stacks:

MySQL and XAMP :

We have made the "Online Escape Room Booking System" database and the table in the database using MySQL.

HTML:

HTML (HyperText Markup Language) is the most basic building block of the Web. It defines the meaning and structure of web content.

The frontend of the webpage is structured using HTML.

CSS:

CSS describes how HTML elements are to be displayed on screen, paper, or in other media.

Styling elements have been added to the homepage by using CSS.

PHP:

Hypertext Preprocessor " PHP " is a widely-used, open source scripting language. PHP scripts are executed on the server.

We have used PHP in the backend so that our webpage connects with the database and functions smoothly.

MS Word:

We have use MS Word to make ER diagrams.

Entity Relation DIAGRAM (ER-DIAGRAM):

An entity relationship diagram (ERD) shows the relationships of entity sets stored in a database. An entity in this context is an object, a component of data. An entity set is a collection of similar entities. These entities can have attributes that define its properties.

The Diagrams are attached as figure:

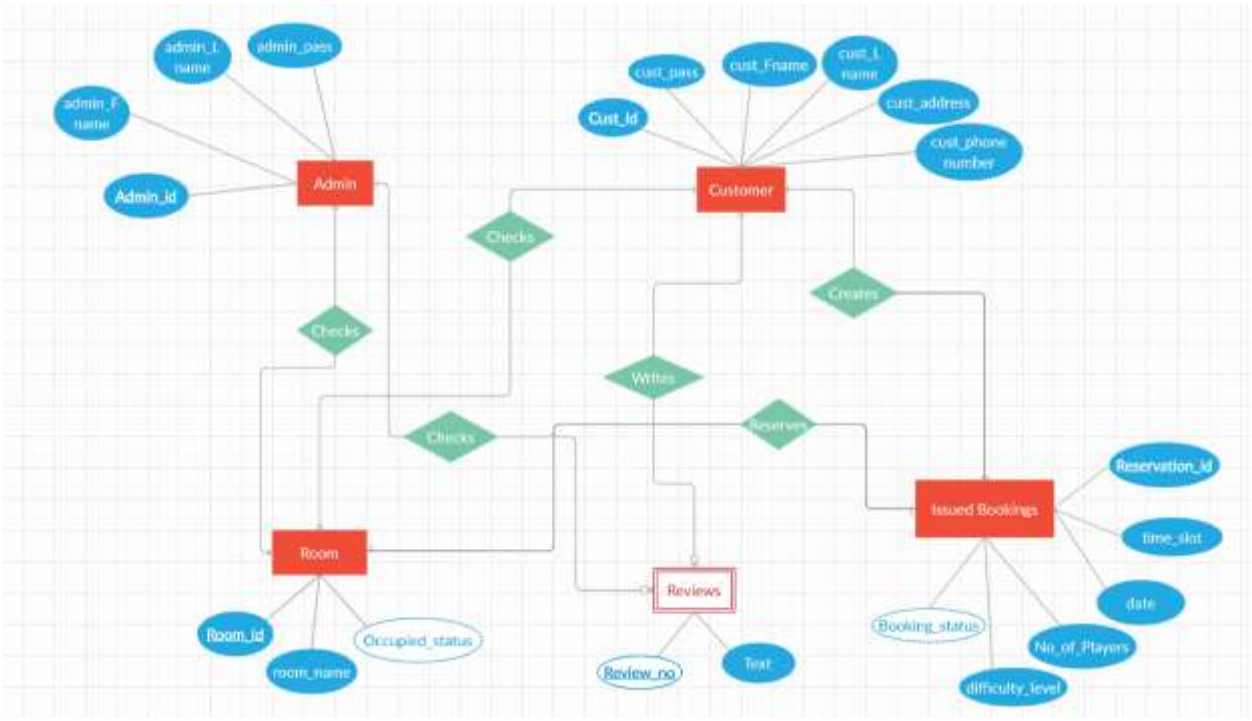


Figure: ER-Diagram of Online Escape Room Booking System

UML DIAGRAM:

We prepare UML diagrams to understand the system in a better and simple way. A single diagram is not enough to cover all the aspects of the system. UML defines various kinds of diagrams to cover most of the aspects of a system.

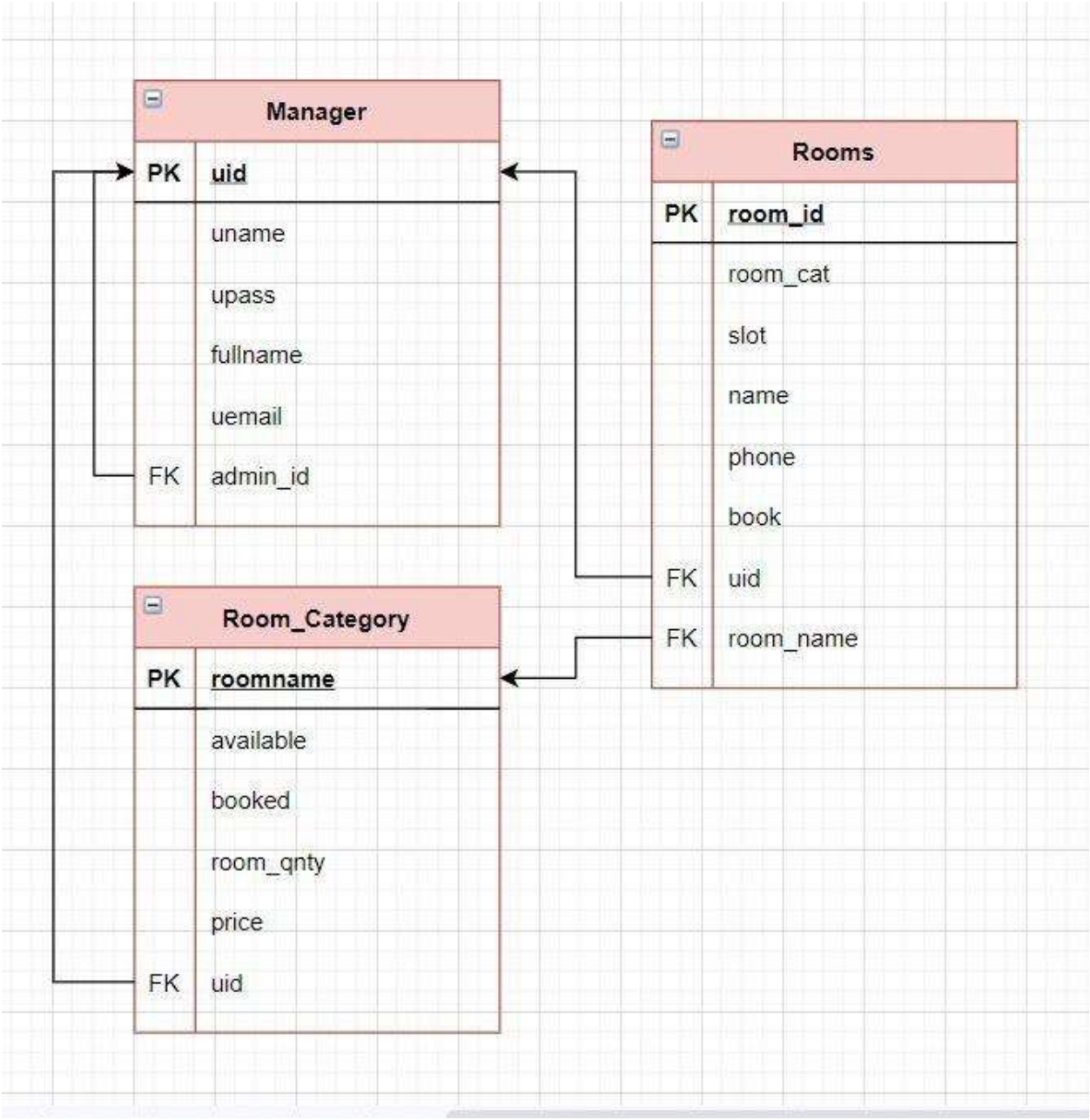


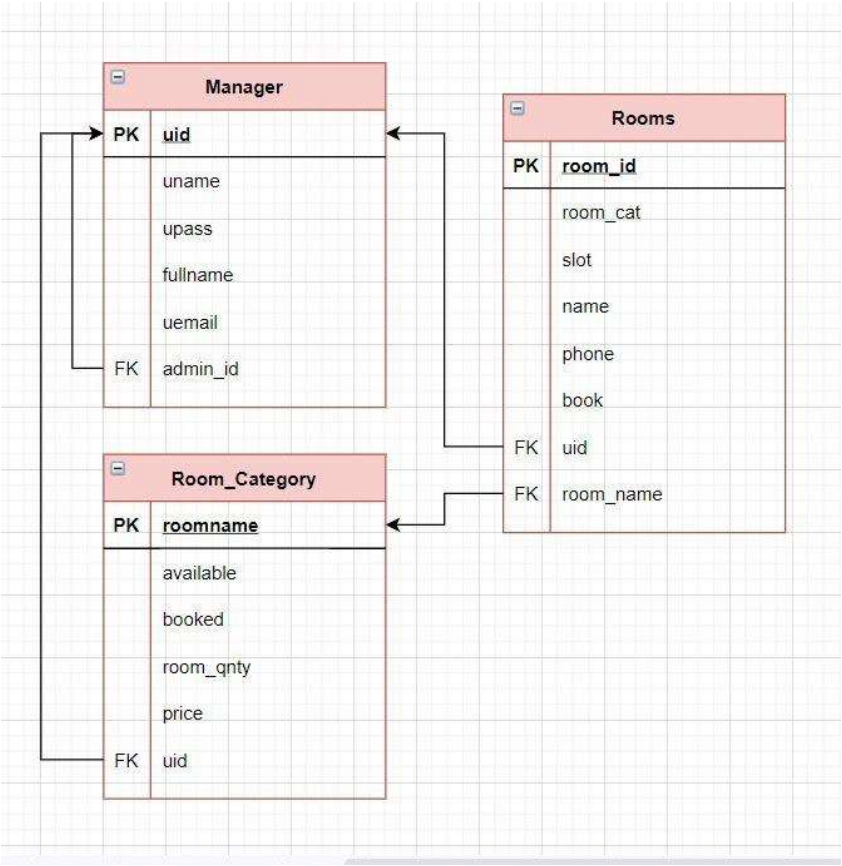
Figure: UML-Diagram of Online Escape Room Booking System

Database Normalization Steps:

NORMALIZATION is a database design technique that reduces data redundancy and eliminates undesirable characteristics like Insertion, Update and Deletion Anomalies. Normalization rules divides larger tables into smaller tables and links them using relationships. The purpose of Normalization in SQL is to eliminate redundant (repetitive) data and ensure data is stored logically. there are discussions even on 6th Normal Form.

- **1NF (First Normal Form)**
- **2NF (Second Normal Form)**
- **3NF (Third Normal Form)**
- **BCNF (Boyce-Codd Normal Form)**
- **4NF (Fourth Normal Form)**
- **5NF (Fifth Normal Form)**
- **6NF (Sixth Normal Form)**

There are discussions even on 6th Normal Form. However, in most practical applications, normalization achieves its best in 3rd Normal Form.
In our Project,
We Normalized upto 3NF,



First normal form (1NF):
As per the rule of first normal form, an attribute (column) of a table cannot hold multiple values. It should hold only atomic values.

Second normal form (2NF)
A table is said to be in 2NF if both the following conditions hold:

- Table is in 1NF (First normal form)
- No non-prime attribute is dependent on the proper subset of any candidate key of table.

An attribute that is not part of any candidate key is known as non-prime attribute.

Third Normal form (3NF):
A table design is said to be in 3NF if both the following conditions hold:

- Table must be in 2NF
- Transitive functional dependency of non-prime attribute on any super key should be removed.

An attribute that is not part of any candidate key is known as non-prime attribute or prime attribute.

Work & Contribution:

Name	**Contribution**
Fardin Bin Islam	Frontend(Incomplete),Backend(Incomplete),Admin Panel, Designing Module.
Safa Ahmed	Backend(Incomplete)Some Basis of Frontend (Incomplete),Er-Diagram, Database,Log in Panel, Contributed in HTML and CSS (incomplete),First Project Proposal,Updated ER Diagram
Rifah Shanjida	Updated Project Proposal, Some Basis of Database Table ,Some Basis of ER-Diagram,Project Report,Some Basis of Backend (Incomplete)

Reference:

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