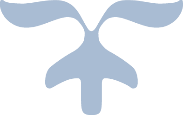


Attendance Management System



I3306 Database II

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1. Introduction

Attendance management system is made to manage the process of education in a university. It facilitates the election of the room were a teacher will give the lesson, and help the student and the teacher to track what was given I previous session. but the more important that it allow to take attendance of student in easy way.

1. Architecture

This application uses 3-tier architecture. It has the following layers:

1. Presentation layer runs on a client (PC)
2. Data is stored on a Server.

The application interface which is called ODBC (Open Database Connectivity) an API which allows the client-side program to call the DBMS. The DBMS offers ODBC drivers for their DBMS. 2 tier architecture provides added security to the DBMS as it is not exposed to the end user directly. This architecture provides Direct and faster communication.

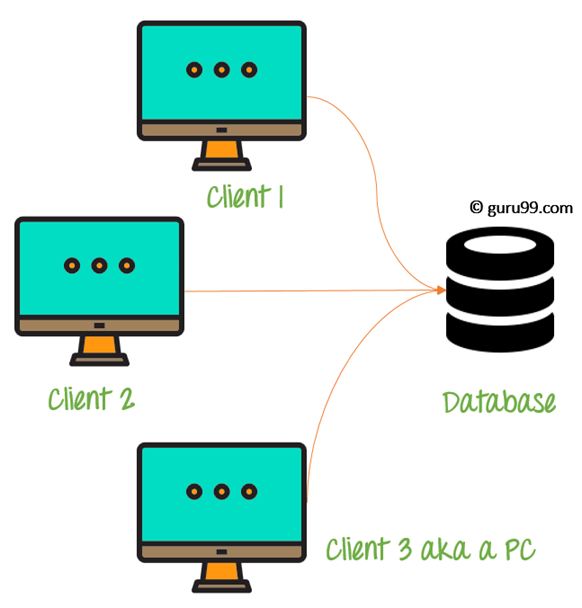


Figure : 2-tier Architecture Diagram

In this project the MySQL database engine was used as a database engine, java as programming language and J connector as ODBC.

1. Database Modeling
   1. Conceptual Data Model

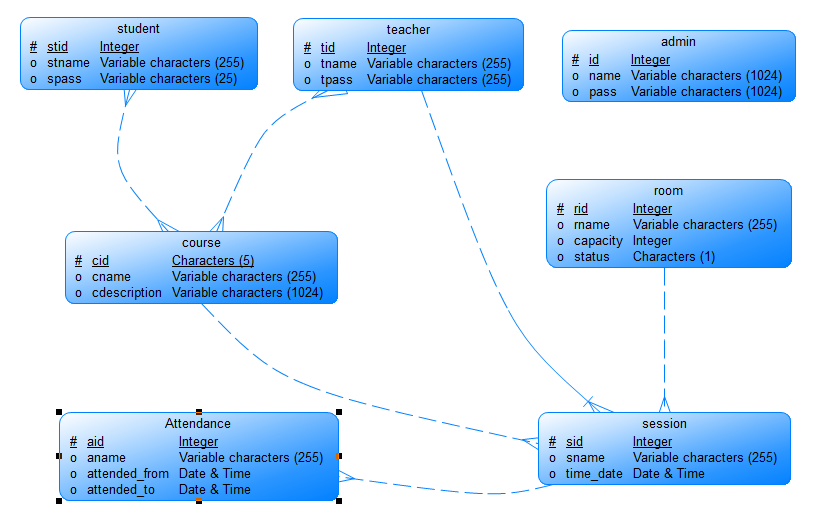


Figure : CDM

* 1. Database Scheme

Course (cid, came, description)

Student (stid, stname, pass)

Teacher (tid, tname, pass)

Admin (id, name, pass)

Room (rid, rname, capacity, status)

Session (sid, sname, time \_date)

Attendance (aid, aname, attended \_from, attended \_to)

Course \_Registration (#stid, #cid)

Teaches (#tid, #cid)

* 1. Physical Data Model

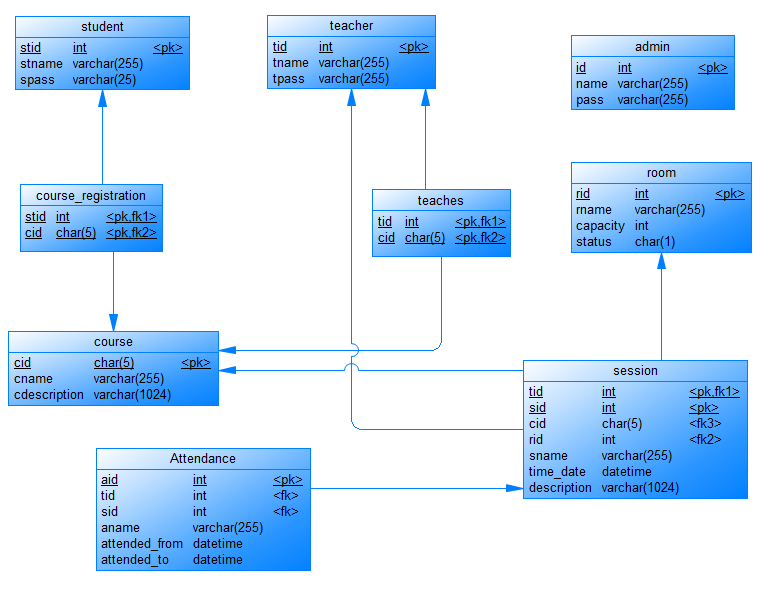


Figure : PDM

Database was modeled using Power Designer tool.

1. Services & Interface Modeling
   1. Services
2. Admin can view, insert, delete, update student, course, rooms and teacher to the system.
3. Admin and teacher can add, update or delete sessions for a specific time in an empty room.
4. Teacher can take attendance for student in a specific session.
   1. Interface Modeling

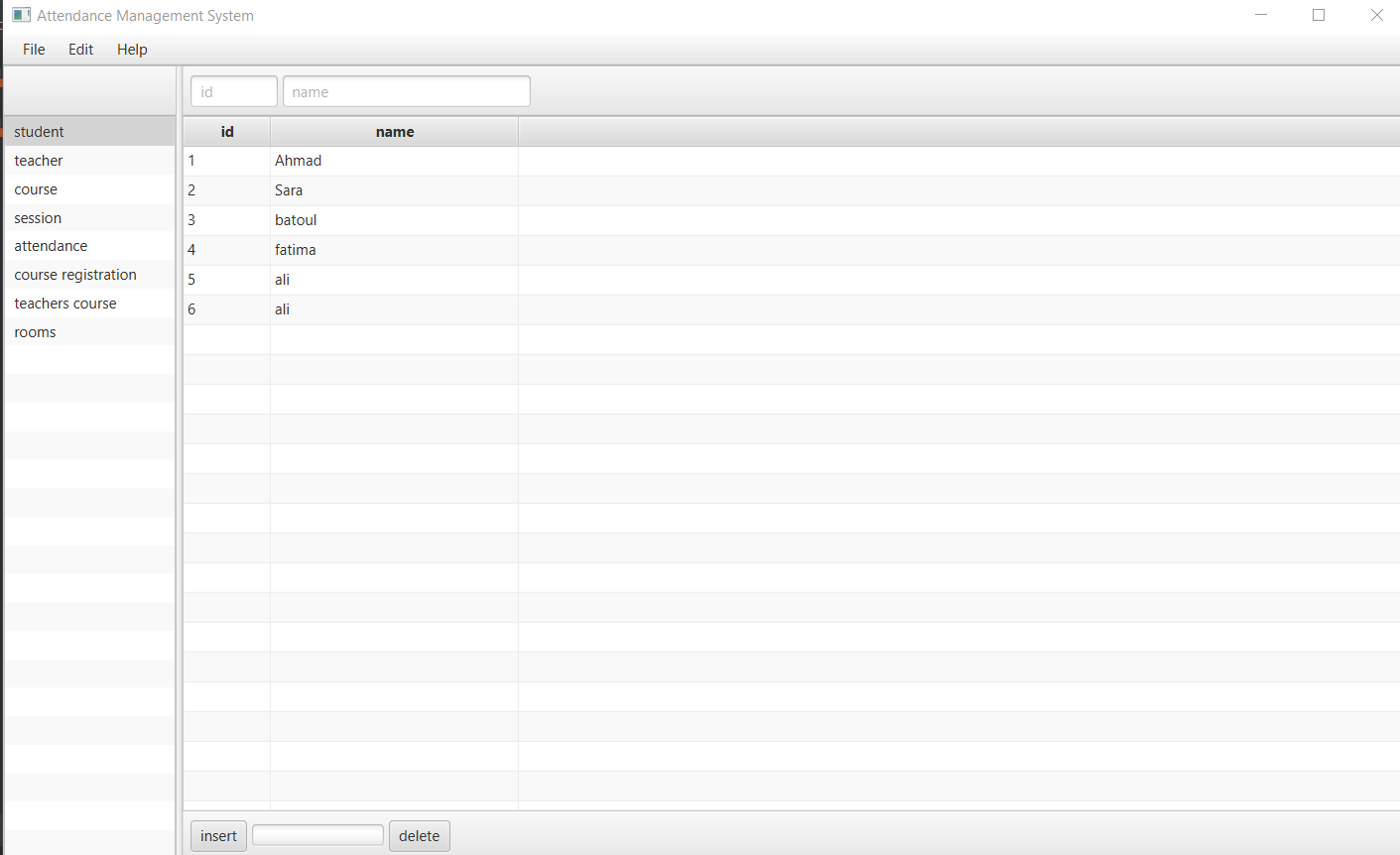


Figure : Student View

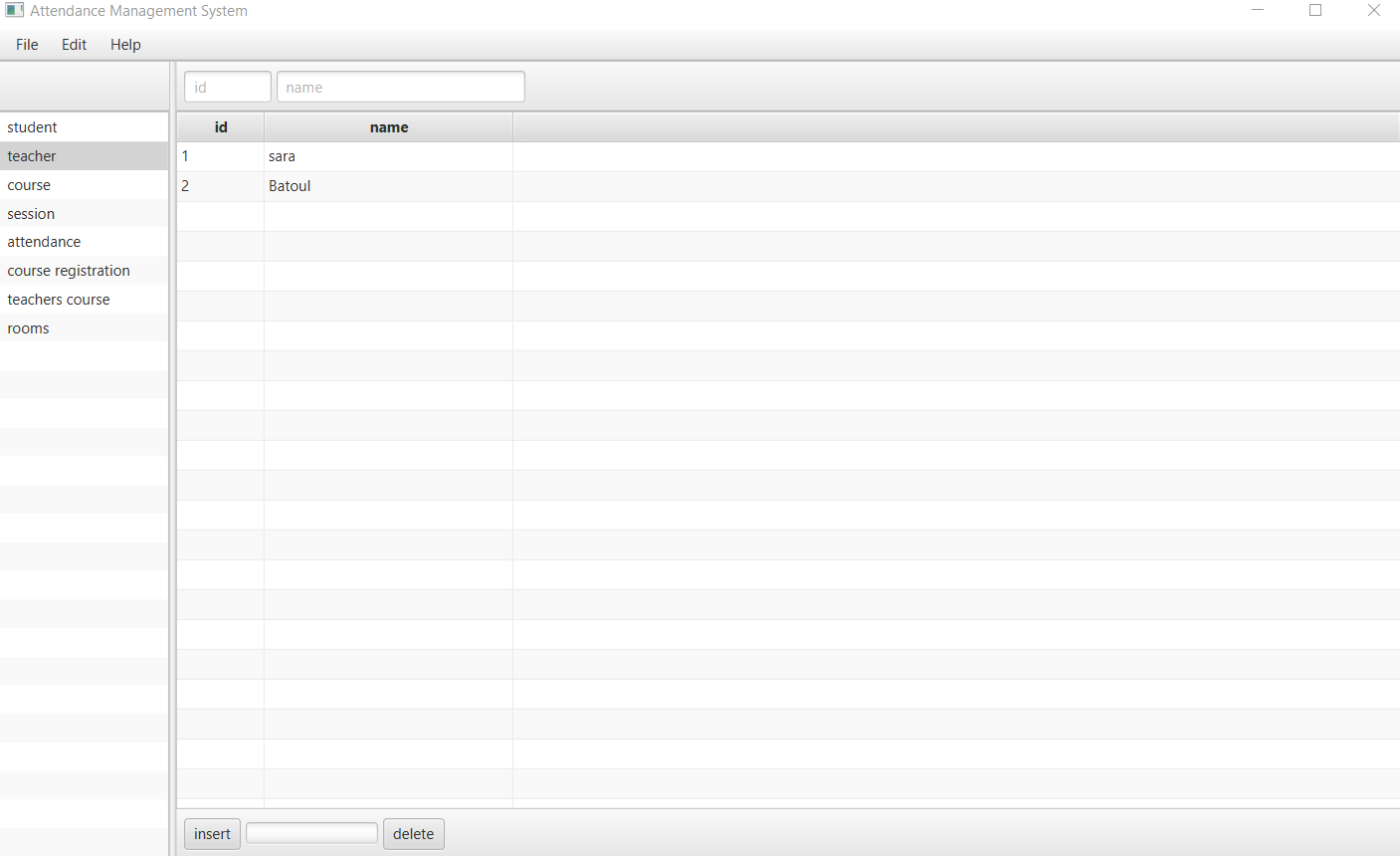


Figure : Teacher View

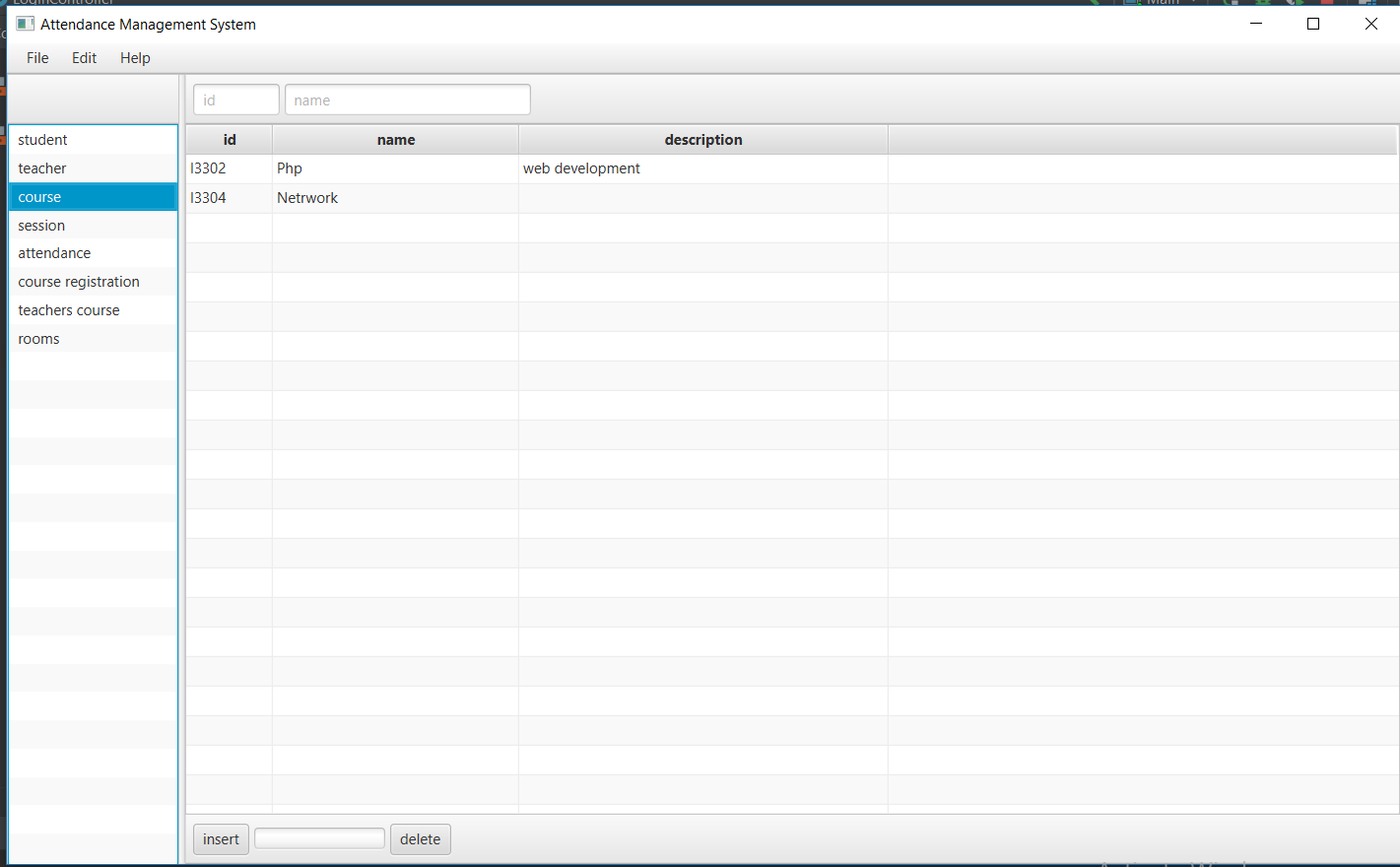


Figure : Course View

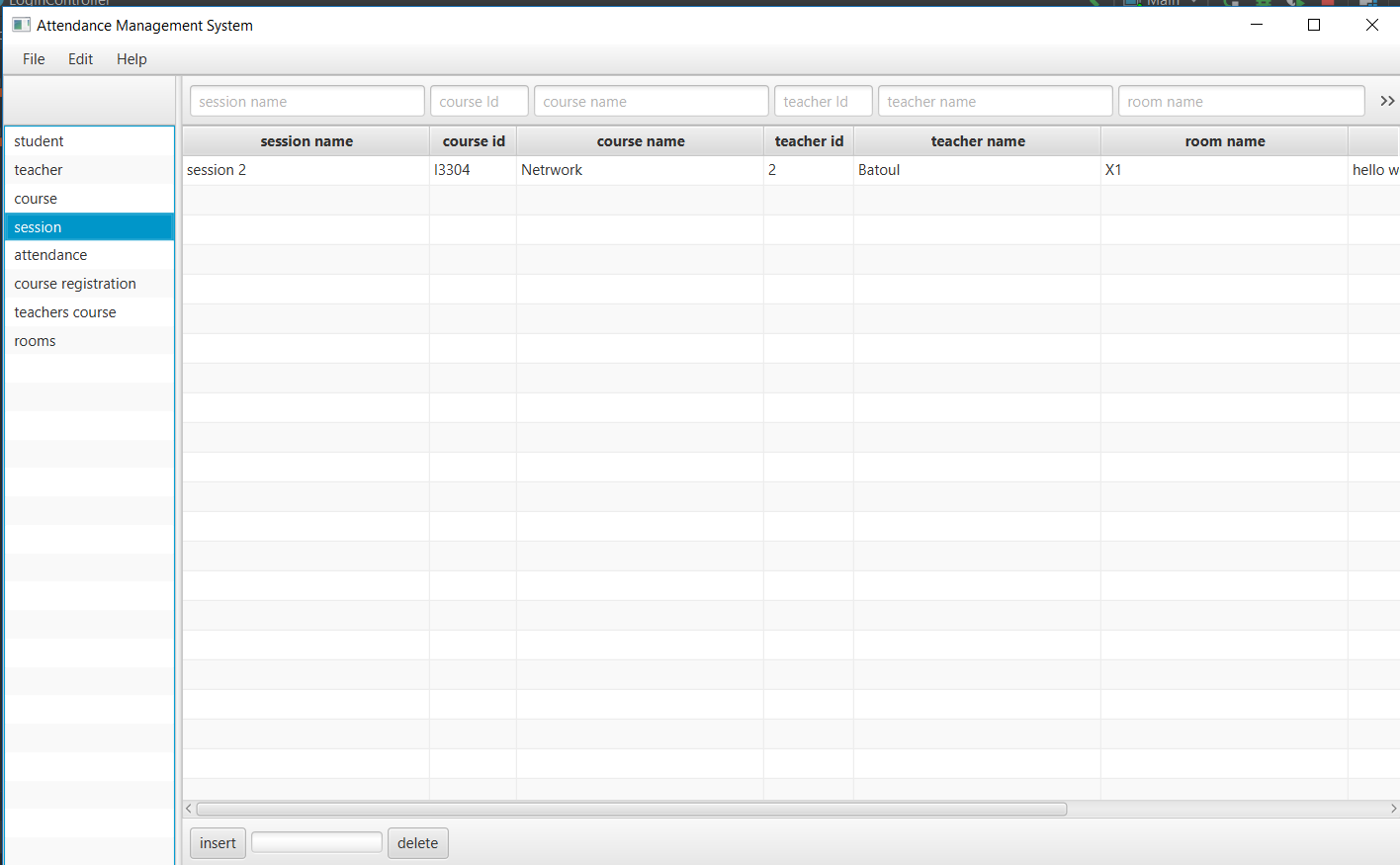


Figure : Session View

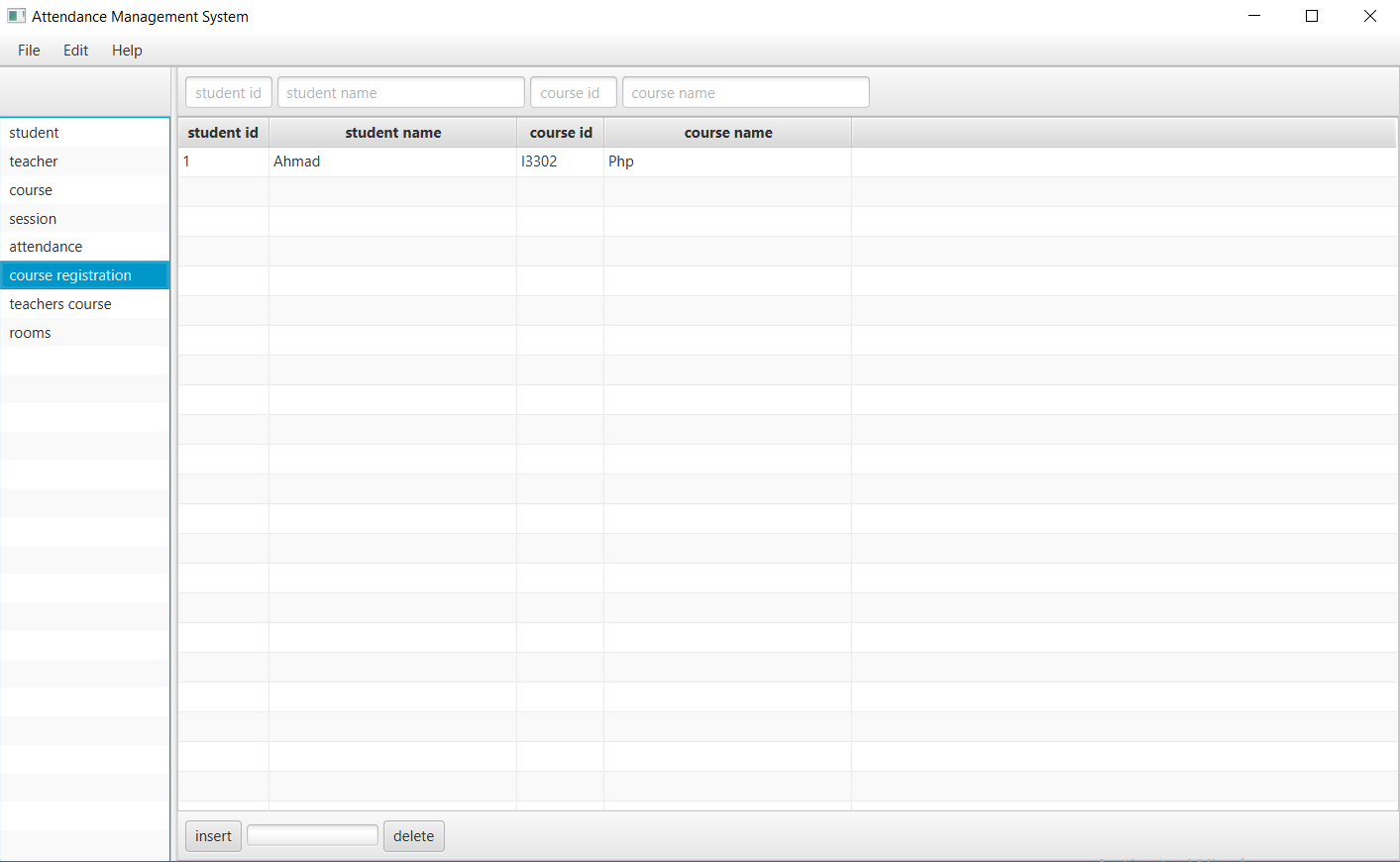


Figure : Course Registration View

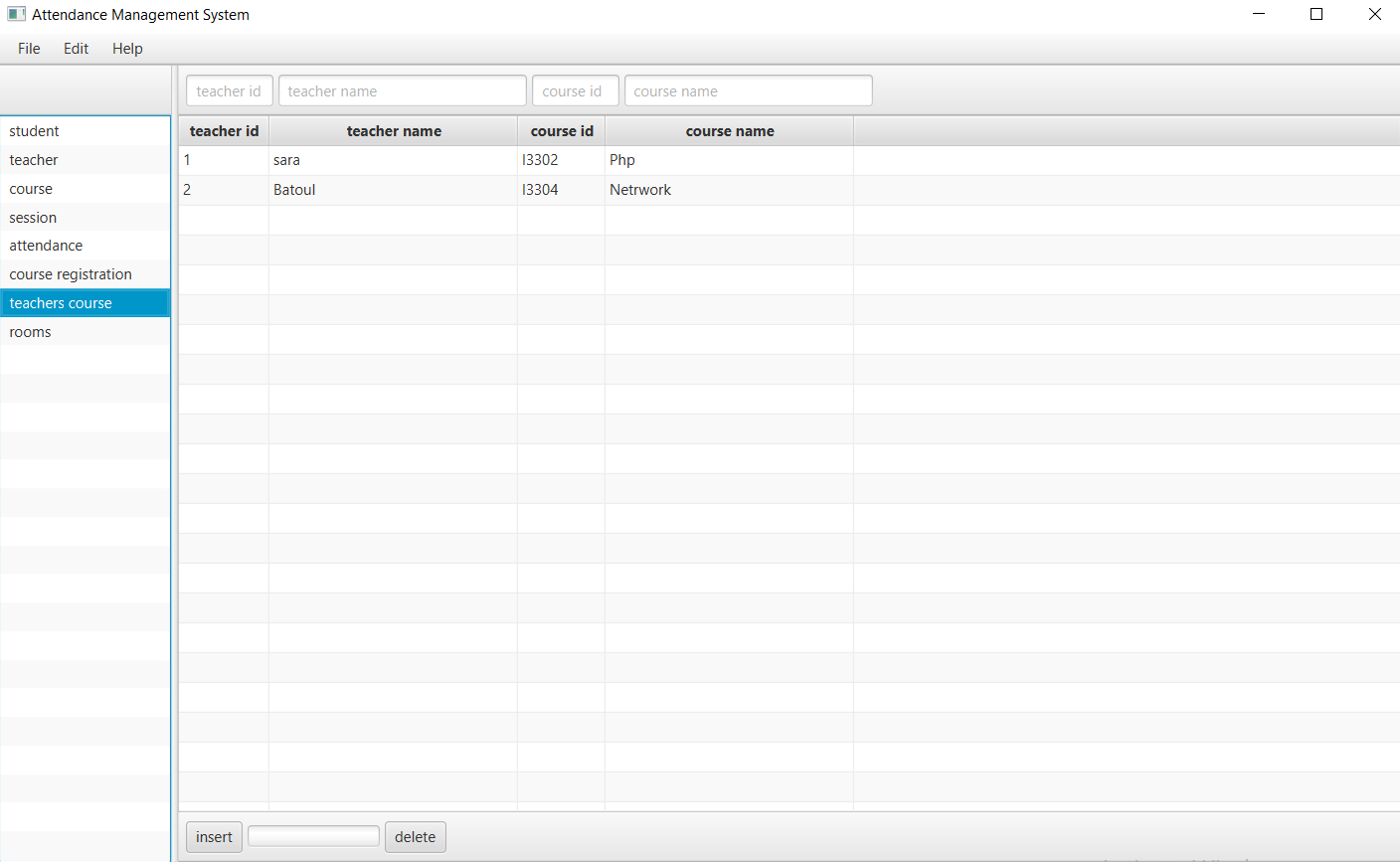


Figure : Teacher Courses View

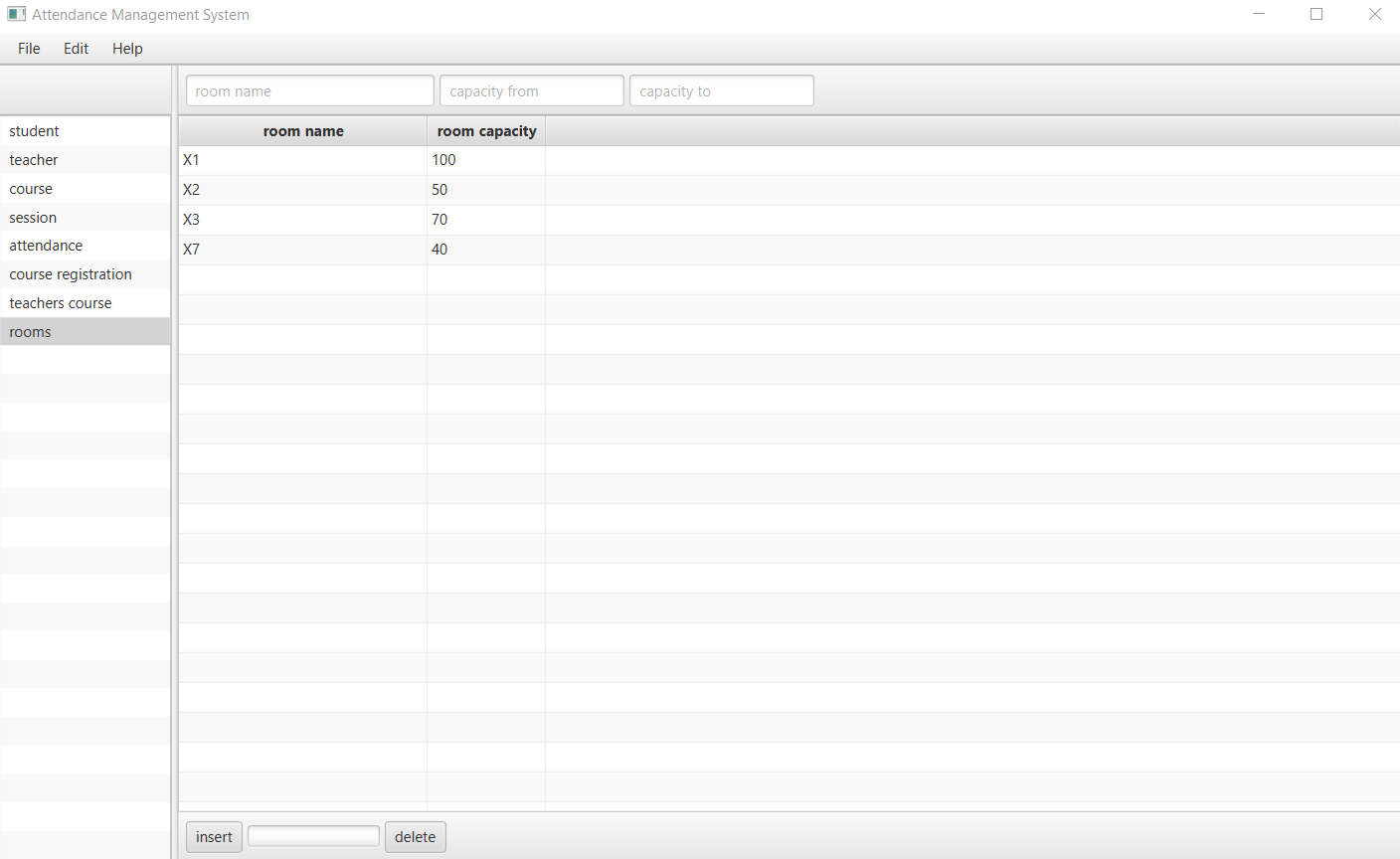


Figure : Room View

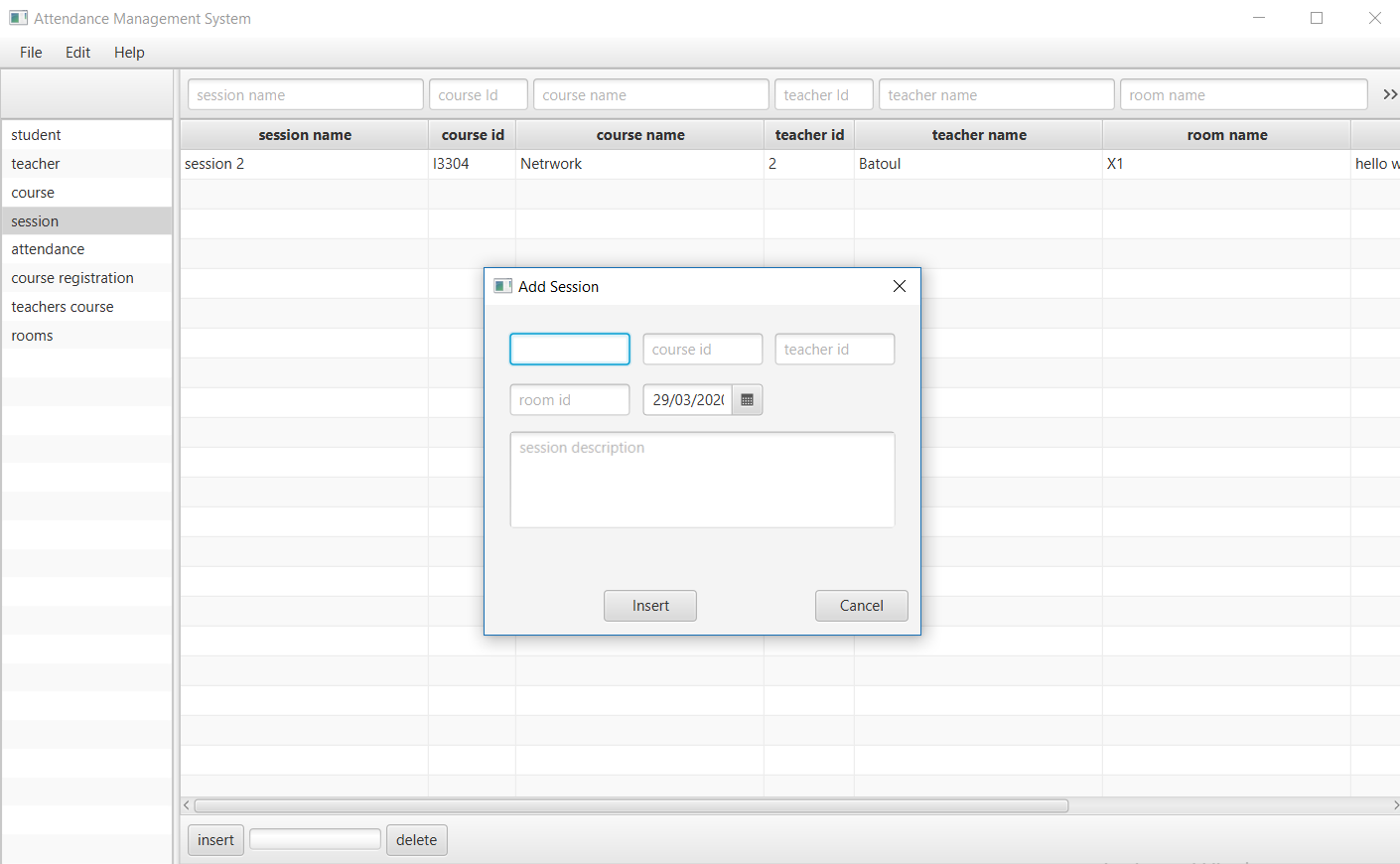


Figure : Insert Session

1. Implementation
   1. . Bat File

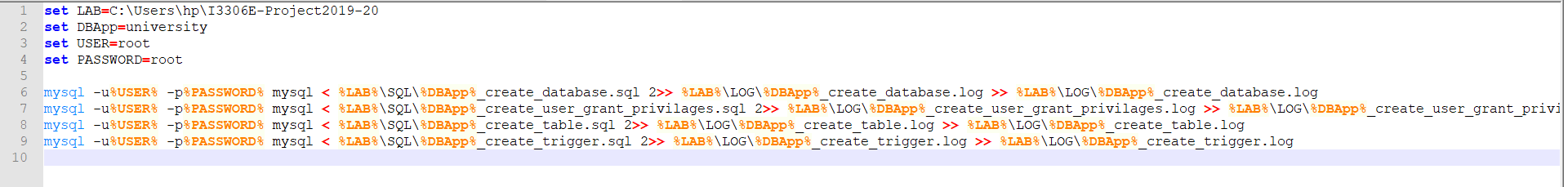
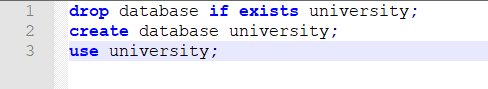


Figure : .Bat file

reasons for creating a MySQL database from a batch file:

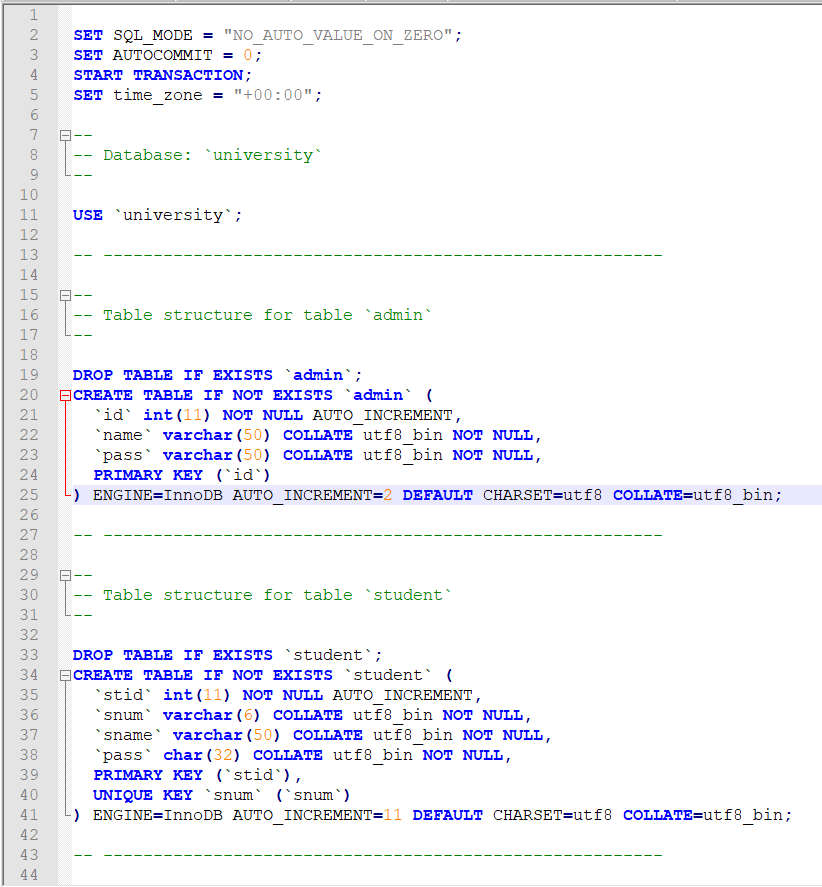
* the batch file provides an historical record of what's been done
* a batch file means that databases are reproducible - either at another time or in another place
  1. Create Database

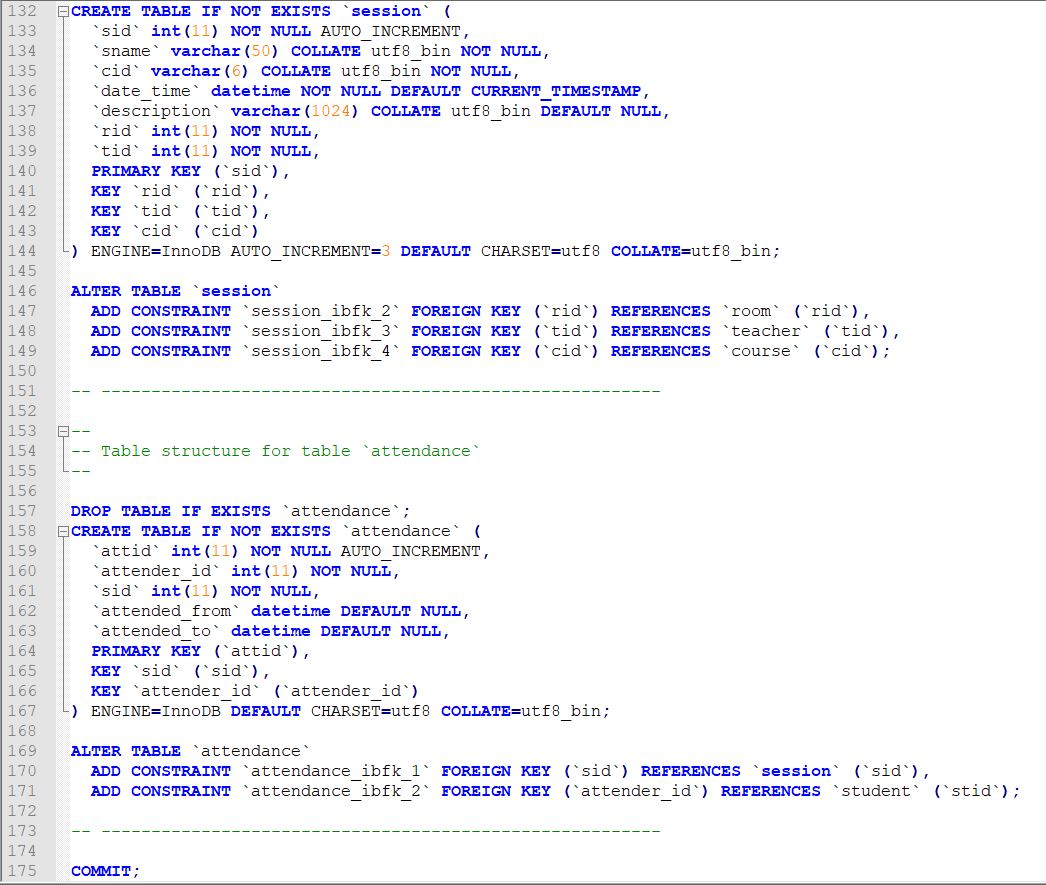


* 1. DDL

Tables of this database are created with the indexes on each primary key in university\_create\_database script.

All the DDL script is put I transaction.

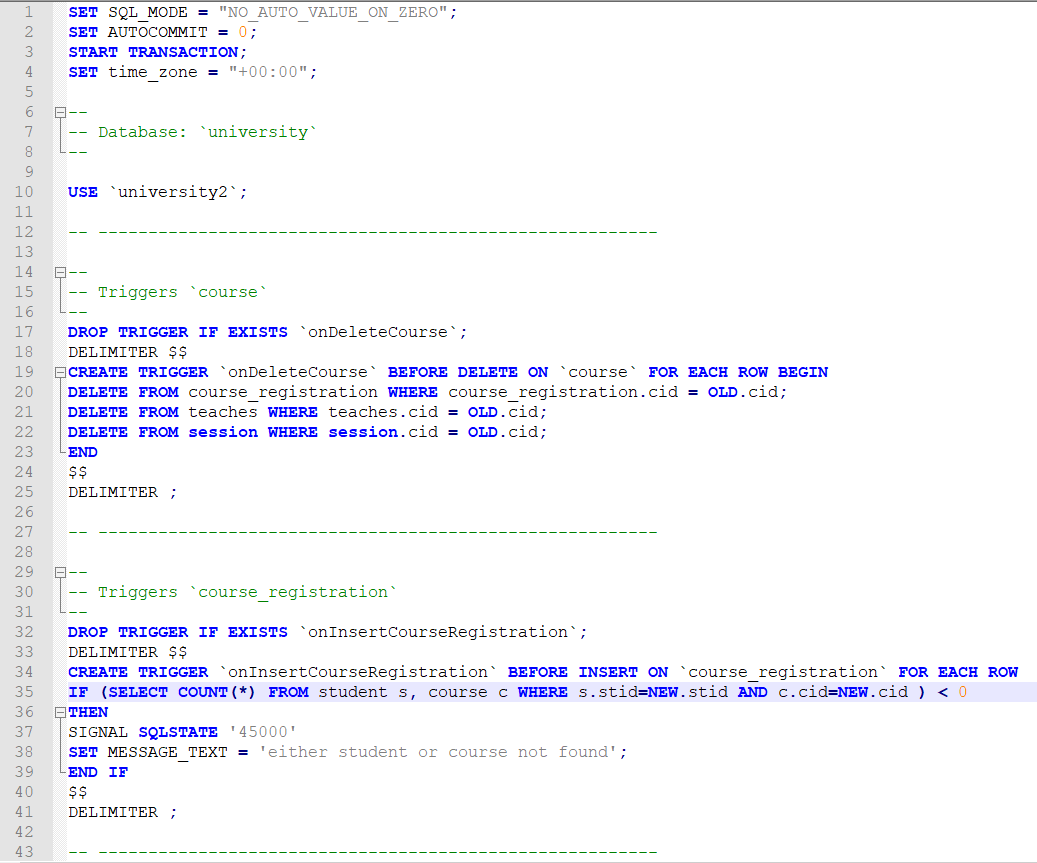


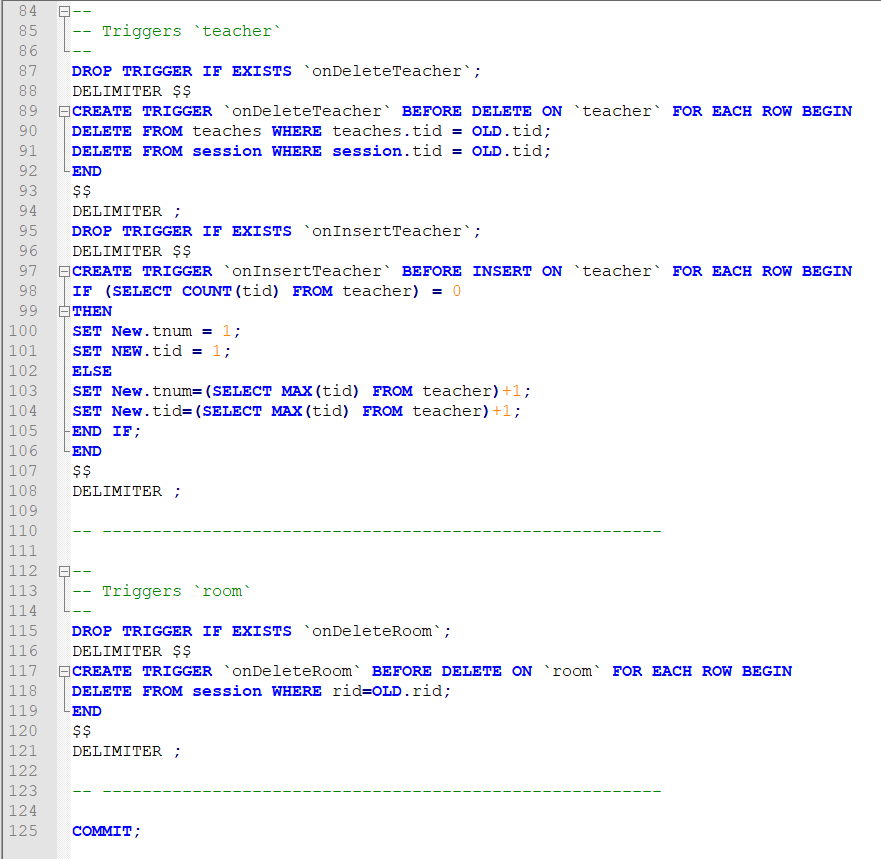


* 1. Triggers

Triggers are added on each tale to materialize the referential-integrity constraints in university\_create\_trigger script.

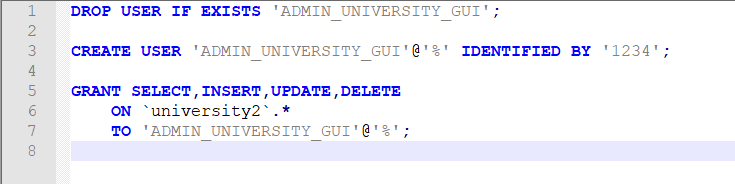
All the triggers scripts are put I transaction.





* 1. Create User & grant privilege

In university\_create\_user\_grant\_privilages script a specific user for our system is created having all privilege needed.



1. Conclusion