AdminServlet:

package com.simplilearn.admin;

import java.io.IOException;

import java.util.List;

import javax.annotation.Resource;

import javax.servlet.RequestDispatcher;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.sql.DataSource;

import com.simplilearn.models.Student;

import com.simplilearn.models.Subject;

import com.simplilearn.models.Teacher;

import com.simplilearn.models.Class;

/\*\*

\* Servlet implementation class AdminControllerServlet

\*/

@WebServlet("/AdminControllerServlet")

public class AdminControllerServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

private DbRetrieve dbRetrieve;

@Resource(name = "jdbc\_database")

private DataSource datasource;

@Override

public void init() throws ServletException {

super.init();

// create instance of db util, to pass in conn pool object

try {

dbRetrieve = new DbRetrieve(datasource);

} catch (Exception e) {

throw new ServletException(e);

}

}

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public AdminControllerServlet() {

super();

// TODO Auto-generated constructor stub

}

@Override

protected void doPost(HttpServletRequest req, HttpServletResponse resp) throws ServletException, IOException {

doGet(req, resp);

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse

\* response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// TODO Auto-generated method stub

try {

// read the "command" parameter

String command = request.getParameter("command");

if (command == null) {

command = "CLASSES";

}

// if no cookeies

if (!getCookies(request, response) && (!command.equals("LOGIN"))) {

response.sendRedirect("/Administrative-Portal/login.jsp");

}

else {

// if there is no command, how to handle

// route the data to the appropriate method

switch (command) {

case "STUDENTS":

studentsList(request, response);

break;

case "TEACHERS":

teachersList(request, response);

break;

case "SUBJECTS":

subjectList(request, response);

break;

case "CLASSES":

classestList(request, response);

break;

case "ST\_LIST":

classStudentsList(request, response);

break;

case "LOGIN":

login(request, response);

break;

default:

classestList(request, response);

}

}

} catch (Exception e) {

throw new ServletException(e);

}

// response.getWriter().append("Served at: ").append(request.getContextPath());

}

private void studentsList(HttpServletRequest request, HttpServletResponse response) throws Exception {

// get students from db util

List<Student> students = dbRetrieve.getStudents();

// add students to the request

request.setAttribute("STUDENT\_LIST", students);

// send it to the jsp view page

RequestDispatcher dispatcher = request.getRequestDispatcher("/list-students.jsp");

dispatcher.forward(request, response);

}

private void teachersList(HttpServletRequest request, HttpServletResponse response) throws Exception {

// get students from db util

List<Teacher> teachers = dbRetrieve.getTeachers();

// add students to the request

request.setAttribute("TEACHERS\_LIST", teachers);

// send it to the jSP view page

RequestDispatcher dispatcher = request.getRequestDispatcher("/teachers-list.jsp");

dispatcher.forward(request, response);

}

private void subjectList(HttpServletRequest request, HttpServletResponse response) throws Exception {

// get subjects from db util

List<Subject> subjects = dbRetrieve.getSubjects();

// add subjects to the request

request.setAttribute("SUBJECTS\_LIST", subjects);

// send it to the jSP view page

RequestDispatcher dispatcher = request.getRequestDispatcher("/subjects-list.jsp");

dispatcher.forward(request, response);

}

private void classestList(HttpServletRequest request, HttpServletResponse response) throws Exception {

// get subjects from db util

List<Class> classes = dbRetrieve.getClasses();

// add subjects to the request

request.setAttribute("CLASSES\_LIST", classes);

// send it to the jSP view page

RequestDispatcher dispatcher = request.getRequestDispatcher("/classes-list.jsp");

dispatcher.forward(request, response);

}

private void login(HttpServletRequest request, HttpServletResponse response) throws Exception {

String username = request.getParameter("username");

String password = request.getParameter("password");

if (username.toLowerCase().equals("admin") && password.toLowerCase().equals("admin")) {

Cookie cookie = new Cookie(username, password);

// Setting the maximum age to 1 day

cookie.setMaxAge(86400); // 86400 seconds in a day

// Send the cookie to the client

response.addCookie(cookie);

classestList(request, response);

} else {

RequestDispatcher dispatcher = request.getRequestDispatcher("/login.jsp");

dispatcher.forward(request, response);

}

}

private void classStudentsList(HttpServletRequest request, HttpServletResponse response) throws Exception {

int classId = Integer.parseInt(request.getParameter("classId"));

String section = request.getParameter("section");

String subject = request.getParameter("subject");

// get subjects from db util

List<Student> students = dbRetrieve.loadClassStudents(classId);

// add subjects to the request

request.setAttribute("STUDENTS\_LIST", students);

request.setAttribute("SECTION", section);

request.setAttribute("SUBJECT", subject);

// send it to the jSP view page

RequestDispatcher dispatcher = request.getRequestDispatcher("/class-students.jsp");

dispatcher.forward(request, response);

}

private boolean getCookies(HttpServletRequest request, HttpServletResponse response) throws Exception {

boolean check = false;

Cookie[] cookies = request.getCookies();

// Find the cookie of interest in arrays of cookies

for (Cookie cookie : cookies) {

if (cookie.getName().equals("admin") && cookie.getValue().equals("admin")) {

check = true;

break;

}

}

return check;

}

}

2) Db Retrieve:

package com.simplilearn.admin;

import java.sql.Connection;

import java.sql.ResultSet;

import java.sql.Statement;

import java.util.ArrayList;

import java.util.List;

import javax.sql.DataSource;

import com.simplilearn.models.Student;

import com.simplilearn.models.Subject;

import com.simplilearn.models.Teacher;

import com.simplilearn.models.Class;

public class DbRetrieve {

private DataSource dataSource;

public DbRetrieve(DataSource dataSource) {

this.dataSource = dataSource;

}

public List<Student> getStudents() {

List<Student> students = new ArrayList<>();

Connection myConn = null;

Statement myStmt = null;

ResultSet myRs = null;

try {

// get a connection

myConn = dataSource.getConnection();

// create sql stmt

String sql = "SELECT \* FROM students";

myStmt = myConn.createStatement();

// execute query

myRs = myStmt.executeQuery(sql);

// process result

while (myRs.next()) {

// retrieve data from result set row

int id = myRs.getInt("id");

String firstName = myRs.getString("fname");

String lastName = myRs.getString("lname");

int age = myRs.getInt("age");

int aclass = myRs.getInt("class");

// create new student object

Student tempStudent = new Student(id, firstName, lastName, age, aclass);

// add it to the list of students

students.add(tempStudent);

}

} catch (Exception e) {

// TODO: handle exception

} finally {

// close JDBC objects

close(myConn, myStmt, myRs);

}

return students;

}

public List<Teacher> getTeachers() {

List<Teacher> teachers = new ArrayList<>();

Connection myConn = null;

Statement myStmt = null;

ResultSet myRs = null;

try {

// get a connection

myConn = dataSource.getConnection();

// create sql stmt

String sql = "SELECT \* FROM teachers";

myStmt = myConn.createStatement();

// execute query

myRs = myStmt.executeQuery(sql);

// process result

while (myRs.next()) {

// retrieve data from result set row

int id = myRs.getInt("id");

String firstName = myRs.getString("fname");

String lastName = myRs.getString("lname");

int age = myRs.getInt("age");

// create new student object

Teacher temp = new Teacher(id, firstName, lastName, age);

// add it to the list of students

teachers.add(temp);

}

} catch (Exception e) {

// TODO: handle exception

} finally {

// close JDBC objects

close(myConn, myStmt, myRs);

}

return teachers;

}

public List<Subject> getSubjects() {

List<Subject> subjects = new ArrayList<>();

Connection myConn = null;

Statement myStmt = null;

ResultSet myRs = null;

try {

// get a connection

myConn = dataSource.getConnection();

// create sql stmt

String sql = "SELECT \* FROM subjects";

myStmt = myConn.createStatement();

// execute query

myRs = myStmt.executeQuery(sql);

// process result

while (myRs.next()) {

// retrieve data from result set row

int id = myRs.getInt("id");

String name = myRs.getString("name");

String shortcut = myRs.getString("shortcut");

// create new student object

Subject temp = new Subject(id, name,shortcut);

// add it to the list of students

subjects.add(temp);

}

} catch (Exception e) {

// TODO: handle exception

} finally {

// close JDBC objects

close(myConn, myStmt, myRs);

}

return subjects;

}

public List<Class> getClasses() {

List<Class> classes = new ArrayList<>();

Connection myConn = null;

Statement myStmt = null;

ResultSet myRs = null;

try {

// get a connection

myConn = dataSource.getConnection();

// create sql stmt

String sql = "SELECT \* FROM classes";

myStmt = myConn.createStatement();

// execute query

myRs = myStmt.executeQuery(sql);

// process result

while (myRs.next()) {

// retrieve data from result set row

int id = myRs.getInt("id");

int section = myRs.getInt("section");

int subject = myRs.getInt("subject");

int teacher = myRs.getInt("teacher");

String time = myRs.getString("time");

Teacher tempTeacher = loadTeacher(teacher);

Subject tempSubject = loadSubject(subject);

String teacher\_name = tempTeacher.getFname() + " " + tempTeacher.getLname();

// create new student object

Class temp = new Class(id, section, teacher\_name, tempSubject.getName(), time);

// add it to the list of students

classes.add(temp);

}

} catch (Exception e) {

// TODO: handle exception

} finally {

// close JDBC objects

close(myConn, myStmt, myRs);

}

return classes;

}

public Teacher loadTeacher(int teacherId) {

Teacher theTeacher = null;

Connection myConn = null;

Statement myStmt = null;

ResultSet myRs = null;

try {

// get a connection

myConn = dataSource.getConnection();

// create sql stmt

String sql = "SELECT \* FROM teachers WHERE id = " + teacherId;

myStmt = myConn.createStatement();

// execute query

myRs = myStmt.executeQuery(sql);

// process result

while (myRs.next()) {

// retrieve data from result set row

int id = myRs.getInt("id");

String fname = myRs.getString("fname");

String lname = myRs.getString("lname");

int age = myRs.getInt("age");

theTeacher = new Teacher(id, fname, lname, age);

}

} catch (Exception e) {

// TODO: handle exception

} finally {

// close JDBC objects

close(myConn, myStmt, myRs);

}

return theTeacher;

}

public Subject loadSubject(int subjectId) {

Subject theSubject = null;

Connection myConn = null;

Statement myStmt = null;

ResultSet myRs = null;

try {

// get a connection

myConn = dataSource.getConnection();

// create sql stmt

String sql = "SELECT \* FROM subjects WHERE id = " + subjectId;

myStmt = myConn.createStatement();

// execute query

myRs = myStmt.executeQuery(sql);

// process result

while (myRs.next()) {

// retrieve data from result set row

int id = myRs.getInt("id");

String name = myRs.getString("name");

String shortcut = myRs.getString("shortcut");

theSubject = new Subject(id, name,shortcut);

}

} catch (Exception e) {

// TODO: handle exception

} finally {

// close JDBC objects

close(myConn, myStmt, myRs);

}

return theSubject;

}

public Class loadClass(int classId) {

Class theClass = null;

Connection myConn = null;

Statement myStmt = null;

ResultSet myRs = null;

try {

// get a connection

myConn = dataSource.getConnection();

// create sql stmt

String sql = "SELECT \* FROM clasess WHERE id = " + classId;

myStmt = myConn.createStatement();

// execute query

myRs = myStmt.executeQuery(sql);

// process result

while (myRs.next()) {

// retrieve data from result set row

int id = myRs.getInt("id");

int section = myRs.getInt("section");

int subject = myRs.getInt("subject");

int teacher = myRs.getInt("teacher");

String time = myRs.getString("time");

Teacher tempTeacher = loadTeacher(teacher);

Subject tempSubject = loadSubject(subject);

String teacher\_name = tempTeacher.getFname() + " " + tempTeacher.getLname();

}

} catch (Exception e) {

// TODO: handle exception

} finally {

// close JDBC objects

close(myConn, myStmt, myRs);

}

return theClass;

}

public List<Student> loadClassStudents(int classId) {

List<Student> students = new ArrayList<>();

Connection myConn = null;

Statement myStmt = null;

ResultSet myRs = null;

try {

// get a connection

myConn = dataSource.getConnection();

// create sql stmt

String sql = "SELECT \* FROM students WHERE class = " + classId;

myStmt = myConn.createStatement();

// execute query

myRs = myStmt.executeQuery(sql);

// process result

while (myRs.next()) {

// retrieve data from result set row

int id = myRs.getInt("id");

String firstName = myRs.getString("fname");

String lastName = myRs.getString("lname");

int age = myRs.getInt("age");

int aclass = myRs.getInt("class");

// create new student object

Student tempStudent = new Student(id, firstName, lastName, age, aclass);

students.add(tempStudent);

}

} catch (Exception e) {

// TODO: handle exception

} finally {

// close JDBC objects

close(myConn, myStmt, myRs);

}

return students;

}

private void close(Connection myConn, Statement myStmt, ResultSet myRs) {

try {

if (myRs != null) {

myRs.close();

}

if (myStmt != null) {

myStmt.close();

}

if (myConn != null) {

myConn.close();

}

} catch (Exception e) {

e.printStackTrace();

}

}

}

3) Test Servlet:

package com.simplilearn.admin;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.ResultSet;

import java.sql.Statement;

import javax.annotation.Resource;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.sql.DataSource;

/\*\*

\* Servlet implementation class TestServlet

\*/

@WebServlet("/TestServlet")

public class TestServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

//Define datasource/connection pool for reference

@Resource(name="jdbc\_database")

private DataSource dataSource;

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

// Set the printwriter

PrintWriter out = response.getWriter();

response.setContentType("text/plain");

// establish connection to the DB

Connection myConn = null;

Statement myStmt = null;

ResultSet myRs = null;

try {

myConn = dataSource.getConnection();

//create a sql statement

String sql = "select \* from students";

myStmt = myConn.createStatement();

//execute the sql statement

myRs = myStmt.executeQuery(sql);

//process the resultset

while(myRs.next()) {

String fname = myRs.getString("fname");

out.println(fname);

}

}

catch(Exception e) {

e.printStackTrace();

}

}

}

Class :

package com.simplilearn.models;

public class Class {

private int id;

private int section;

private String teacher;

private String subject;

private String time;

public Class(int id, int section, String teacher, String subject, String time) {

super();

this.id = id;

this.section = section;

this.teacher = teacher;

this.subject = subject;

this.time = time;

}

public int getId() {

return id;

}

public void setId(int id) {

this.id = id;

}

public int getSection() {

return section;

}

public void setSection(int section) {

this.section = section;

}

public String getTeacher() {

return teacher;

}

public void setTeacher(String teacher) {

this.teacher = teacher;

}

public String getSubject() {

return subject;

}

public void setSubject(String subject) {

this.subject = subject;

}

public String getTime() {

return time;

}

public void setTime(String time) {

this.time = time;

}

}

Student:

package com.simplilearn.models;

public class Student {

private int id;

private String fname;

private String lname;

private int age;

private int aclass;

public Student(int id, String fname, String lname, int age, int aclass) {

super();

this.id = id;

this.fname = fname;

this.lname = lname;

this.age = age;

this.aclass = aclass;

}

public int getId() {

return id;

}

public void setId(int id) {

this.id = id;

}

public String getFname() {

return fname;

}

public void setFname(String fname) {

this.fname = fname;

}

public String getLname() {

return lname;

}

public void setLname(String lname) {

this.lname = lname;

}

public int getAge() {

return age;

}

public void setAge(int age) {

this.age = age;

}

public int getAclass() {

return aclass;

}

public void setAclass(int aclass) {

this.aclass = aclass;

}

@Override

public String toString() {

return "Student [id=" + id + ", fname=" + fname + ", lname=" + lname + ", age=" + age + ", aclass=" + aclass

+ "]";

}

}

Subject:

package com.simplilearn.models;

public class Subject {

private int id;

private String name;

private String shortcut;

public Subject(int id, String name, String shortcut ) {

super();

this.id = id;

this.name = name;

this.shortcut = shortcut;

}

public int getId() {

return id;

}

public void setId(int id) {

this.id = id;

}

public String getShortcut() {

return shortcut;

}

public void setShortcut(String shortcut) {

this.shortcut = shortcut;

}

public String getName() {

return name;

}

public void setName(String name) {

this.name = name;

}

}

Teacher:

package com.simplilearn.models;

public class Teacher {

private int id;

private String fname;

private String lname;

private int age;

public Teacher(int id, String fname, String lname, int age) {

super();

this.id = id;

this.fname = fname;

this.lname = lname;

this.age = age;

}

public int getId() {

return id;

}

public void setId(int id) {

this.id = id;

}

public String getFname() {

return fname;

}

public void setFname(String fname) {

this.fname = fname;

}

public String getLname() {

return lname;

}

public void setLname(String lname) {

this.lname = lname;

}

public int getAge() {

return age;

}

public void setAge(int age) {

this.age = age;

}

}

JSP Files:

Class List:

<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>List of Classes</title>

<link type="text/css" rel="stylesheet" href="css/style.css">

</head>

<body style="background-image: url('css/background.jpg');">

<div id="page">

<jsp:include page="left-list.jsp" />

<div id="wrapper">

<div id="header">

<h3>Classes</h3>

</div>

</div>

<div id="container">

<div id="content">

<table>

<tr>

<th>Section</th>

<th>Subject</th>

<th>Teacher</th>

<th>Time</th>

<th>List of Students</th>

</tr>

<c:forEach var="tempClass" items="${CLASSES\_LIST }">

<tr>

<c:url var="tempLink" value="AdminControllerServlet">

<c:param name="command" value="ST\_LIST" />

<c:param name="classId" value="${tempClass.id }" />

<c:param name="section" value="${tempClass.section }" />

<c:param name="subject" value="${tempClass.subject }" />

</c:url>

<td>${tempClass.section}</td>

<td>${tempClass.subject}</td>

<td>${tempClass.teacher}</td>

<td>${tempClass.time}</td>

<td><a href="${tempLink }">List</a></td>

</tr>

</c:forEach>

</table>

</div>

</div>

</div>

</body>

</html>

Class Students:

<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>Students of a Class</title>

<link type="text/css" rel="stylesheet" href="css/style.css">

</head>

<body style="background-image: url('css/background.jpg');">

<div id="page" >

<jsp:include page="left-list.jsp" />

<div id="wrapper">

<div id="header">

<h3>Students of ${SUBJECT} class section ${SECTION} </h3>

</div>

</div>

<div id="container">

<div id="content">

<table>

<tr>

<th>First Name</th>

<th>Last Name</th>

<th>age</th>

</tr>

<c:forEach var="tempStudent" items="${STUDENTS\_LIST}">

<tr>

<td>${tempStudent.fname}</td>

<td>${tempStudent.lname}</td>

<td>${tempStudent.age}</td>

</tr>

</c:forEach>

</table>

</div>

</div>

</div>

</body>

</html>

DataBase Code:

-- phpMyAdmin SQL Dump

-- version 5.1.0

-- https://www.phpmyadmin.net/

--

-- Host: 127.0.0.1:3307

-- Generation Time: Jun 04, 2021 at 09:32 AM

-- Server version: 10.4.18-MariaDB

-- PHP Version: 8.0.3

SET SQL\_MODE = "NO\_AUTO\_VALUE\_ON\_ZERO";

START TRANSACTION;

SET time\_zone = "+00:00";

/\*!40101 SET @OLD\_CHARACTER\_SET\_CLIENT=@@CHARACTER\_SET\_CLIENT \*/;

/\*!40101 SET @OLD\_CHARACTER\_SET\_RESULTS=@@CHARACTER\_SET\_RESULTS \*/;

/\*!40101 SET @OLD\_COLLATION\_CONNECTION=@@COLLATION\_CONNECTION \*/;

/\*!40101 SET NAMES utf8mb4 \*/;

--

-- Database: `administrative-portal`

--

-- --------------------------------------------------------

--

-- Table structure for table `classes`

--

CREATE TABLE `classes` (

`id` int(11) NOT NULL,

`section` int(55) NOT NULL,

`teacher` int(11) NOT NULL,

`subject` int(11) NOT NULL,

`time` varchar(44) NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--

-- Dumping data for table `classes`

--

INSERT INTO `classes` (`id`, `section`, `teacher`, `subject`, `time`) VALUES

(1, 1, 1, 1, '9:00'),

(2, 3, 2, 2, '11:30');

-- --------------------------------------------------------

--

-- Table structure for table `students`

--

CREATE TABLE `students` (

`id` int(11) NOT NULL,

`fname` varchar(55) NOT NULL,

`lname` varchar(55) NOT NULL,

`age` int(11) DEFAULT NULL,

`class` int(11) NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--

-- Dumping data for table `students`

--

INSERT INTO `students` (`id`, `fname`, `lname`, `age`, `class`) VALUES

(1, 'Ali', 'Ahsan', 21, 1),

(2, 'Hassan', 'Ahmed', 23, 2),

(4, 'Gazi', 'Dani', 21, 1),

(5, 'Tony', 'Fadel', 18, 2),

(6, 'Lami', 'Saro', 24, 1),

(7, 'Yazen', 'Rawn', 24, 2);

-- --------------------------------------------------------

--

-- Table structure for table `subjects`

--

CREATE TABLE `subjects` (

`id` int(11) NOT NULL,

`name` varchar(55) NOT NULL,

`shortcut` varchar(50) NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--

-- Dumping data for table `subjects`

--

INSERT INTO `subjects` (`id`, `name`, `shortcut`) VALUES

(1, 'English', 'ENG'),

(2, 'Mathematics', 'MATH');

-- --------------------------------------------------------

--

-- Table structure for table `teachers`

--

CREATE TABLE `teachers` (

`id` int(11) NOT NULL,

`fname` varchar(55) NOT NULL,

`lname` varchar(55) NOT NULL,

`age` varchar(11) DEFAULT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--

-- Dumping data for table `teachers`

--

INSERT INTO `teachers` (`id`, `fname`, `lname`, `age`) VALUES

(1, 'Sami', 'Rashed', '55'),

(2, 'Rami', 'Sari', '66');

--

-- Indexes for dumped tables

--

--

-- Indexes for table `classes`

--

ALTER TABLE `classes`

ADD PRIMARY KEY (`id`),

ADD KEY `subject\_id` (`subject`),

ADD KEY `teacher\_id` (`teacher`);

--

-- Indexes for table `students`

--

ALTER TABLE `students`

ADD PRIMARY KEY (`id`),

ADD KEY `class\_id` (`class`);

--

-- Indexes for table `subjects`

--

ALTER TABLE `subjects`

ADD PRIMARY KEY (`id`);

--

-- Indexes for table `teachers`

--

ALTER TABLE `teachers`

ADD PRIMARY KEY (`id`);

--

-- AUTO\_INCREMENT for dumped tables

--

--

-- AUTO\_INCREMENT for table `classes`

--

ALTER TABLE `classes`

MODIFY `id` int(11) NOT NULL AUTO\_INCREMENT, AUTO\_INCREMENT=3;

--

-- AUTO\_INCREMENT for table `students`

--

ALTER TABLE `students`

MODIFY `id` int(11) NOT NULL AUTO\_INCREMENT, AUTO\_INCREMENT=8;

--

-- AUTO\_INCREMENT for table `subjects`

--

ALTER TABLE `subjects`

MODIFY `id` int(11) NOT NULL AUTO\_INCREMENT, AUTO\_INCREMENT=3;

--

-- AUTO\_INCREMENT for table `teachers`

--

ALTER TABLE `teachers`

MODIFY `id` int(11) NOT NULL AUTO\_INCREMENT, AUTO\_INCREMENT=3;

--

-- Constraints for dumped tables

--

--

-- Constraints for table `classes`

--

ALTER TABLE `classes`

ADD CONSTRAINT `subject\_id` FOREIGN KEY (`subject`) REFERENCES `subjects` (`id`),

ADD CONSTRAINT `teacher\_id` FOREIGN KEY (`teacher`) REFERENCES `teachers` (`id`);

--

-- Constraints for table `students`

--

ALTER TABLE `students`

ADD CONSTRAINT `class\_id` FOREIGN KEY (`class`) REFERENCES `classes` (`id`);

COMMIT;

/\*!40101 SET CHARACTER\_SET\_CLIENT=@OLD\_CHARACTER\_SET\_CLIENT \*/;

/\*!40101 SET CHARACTER\_SET\_RESULTS=@OLD\_CHARACTER\_SET\_RESULTS \*/;

/\*!40101 SET COLLATION\_CONNECTION=@OLD\_COLLATION\_CONNECTION \*/;