Software Engineering Project: Learning Management System

Joseph Dao, Jonathan Fernandez, Phan Nguyen, and Yousuf Rehman

University of Houston – Downtown

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Team Model



Team Member Responsibilities

Daniel Owen (Note: Daniel left UHD near the end of the semester.)

* Create an initial use case diagram
* Update the use case diagram with a Manage Course Information use case
* Create detailed class diagram

Joseph Dao

* Create a list of possible attributes to build the uses cases around
* Create a list of potential use cases
* Revise the initial use case diagram to follow UML notation
* Revise the first update of the use case diagram to incorporate Professor Chang’s criticisms
* Create the entity-relationship diagram
* Create and maintain the team model and descriptions
* Revise overall class diagram for the student
* Create overall class diagram for the instructor and administrator
* Maintain overall class diagrams for the student, instructor, and administrator
* Create and maintain statechart
* Maintain detailed class diagram
* Create test cases for black-box unit testing
* Create and maintain the graphical user interface

Phan Nguyen

* Create and maintain architecture diagram for the database front-end and back-end
* Revise team diagram
* Execute test cases with MyTAP system

Jonathan Fernandez

* Create initial overall class diagram for the student
* Maintain the entity-relationship diagram
* Create and maintain the database system

Yousuf Rehman

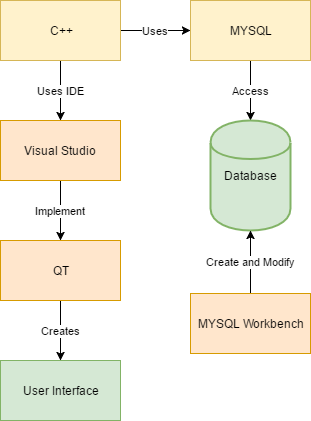
* Maintain the use case diagram

Use Case Diagram

 Entity-Relationship Diagram



Architecture Diagram



Overall Class Diagram



See <https://github.com/JosephDao/student-database/blob/master/diagrams/overall-class.vsdx> for a larger version of the overall class diagram.

Detailed Class Diagram



See <https://github.com/JosephDao/student-database/blob/master/diagrams/detailed-class.vsdx> for a larger version of the detailed class diagram.

Statechart



See <https://github.com/JosephDao/student-database/blob/master/diagrams/statechart.vsdx> for a larger version of the statechart.

Source Code

See <https://github.com/JosephDao/student-database/tree/master/GUI/login> for all the source code used to create the graphical user interface.

Version Control Documentation

See <https://github.com/JosephDao/student-database> for the group’s version control documentation.

# Black-Box Unit Test Cases

Through equivalence testing with boundary value analysis

|  |  |
| --- | --- |
| Course data: |  |
| Equivalence classes for crseNo. |  |
| 1. First character not integer | Error (not an integer) |
| 1. < 4 integers | Error |
| 1. 4 integers | Acceptable |
| Equivalence classes for title. |  |
| 1. First character not letter | Error (not a letter) |
| 1. < 5 characters | Error |
| 1. 5 characters | Acceptable |
| 1. Between 5 and 35 characters | Acceptable |
| 1. > 35 characters | Error (too many characters) |
| Equivalence classes for subj. |  |
| 1. First character not letter | Error (not a letter) |
| 1. < 2 characters | Error |
| 1. 2 characters | Acceptable |
| 1. Between 2 and 4 characters | Acceptable |
| 1. 4 characters | Acceptable |
| 1. > 4 characters | Error (too many characters) |

|  |  |
| --- | --- |
| Course Section data: |  |
| Equivalence classes for CRN. |  |
| 1. First character not integer | Error (not an integer) |
| 1. < 5 integers | Error |
| 1. 5 integers | Acceptable |
| Equivalence classes for startTime. |  |
| 1. First character not integer | Error (not an integer) |
| 1. < 6 characters | Error |
| 1. 6 characters | Acceptable |
| Equivalence classes for endTime. |  |
| 1. First character not integer | Error (not an integer) |
| 1. < 6 characters | Error |
| 1. 6 characters | Acceptable |
| Equivalence classes for days. |  |
| 1. First character not a letter | Error (not a letter) |
| 1. < 1 character | Error |
| 1. 1 character | Acceptable |
| 1. 2 characters | Acceptable |
| 1. > 2 characters | Acceptable |
| 1. L | Error (not within set) |
| 1. Th | Acceptable |
| Equivalence classes for deliveryMode. |  |
| 1. First character not a letter | Error (not a letter) |
| 1. S | Error |
| 1. H | Acceptable |

|  |  |
| --- | --- |
| Grade data: |  |
| Equivalence classes for assignment. |  |
| 1. First character not letter | Error (not a letter) |
| 1. < 4 characters | Error |
| 1. 4 characters | Acceptable |
| 1. Between 4 and 35 characters | Acceptable |
| 1. 35 characters | Acceptable |
| 1. > 35 characters | Error (too many characters) |
| Equivalence classes for grade. |  |
| 1. First character not an integer | Error (not an integer) |
| 1. < 1 integer | Error |
| 1. 1 integer | Acceptable |
| 1. 2 integers | Acceptable |
| 1. > 2 integers | Error (too many integers) |

|  |  |
| --- | --- |
| Student data: |  |
| Equivalence classes for studentID. |  |
| 1. First character not integer | Error (not an integer) |
| 1. < 9 integers | Error |
| 1. 9 integers | Acceptable |
| Equivalence classes for password. |  |
| 1. First character not from letter, digit, or nonalphanumeric | Error (not a letter, digit, or nonalphanumeric character) |
| 1. < 8 characters | Error |
| 1. 8 characters | Acceptable |
| 1. Between 8 and 16 characters | Acceptable |
| 1. 16 characters | Acceptable |
| 1. > 16 characters | Error (too many characters) |
| Equivalence classes for fName. |  |
| 1. First character not letter | Error (not a letter) |
| 1. < 1 character | Error |
| 1. 1 character | Acceptable |
| 1. Between 1 and 35 characters | Acceptable |
| 1. 35 | Acceptable |
| 1. > 35 characters | Error (too many characters) |
| Equivalence classes for lName. |  |
| 1. First character not a character | Error (not a character) |
| 1. < 1 character | Error |
| 1. 1 character | Acceptable |
| 1. Between 1 and 35 characters | Acceptable |
| 1. 35 | Acceptable |
| 1. > 35 characters | Error (too many characters) |
| Equivalence classes for regStatus. |  |
| 1. First character not bool | Error (not a bool) |
| 1. 0 | Acceptable |
| Equivalence classes for gpa. |  |
| 1. First character not integer | Error (not an integer) |
| 1. < 2 characters | Error |
| 1. 2 characters | Acceptable |
| Equivalence classes for email. |  |
| 1. > 254 characters | Error |
| 1. <= characters | Acceptable |

See <https://github.com/JosephDao/student-database/tree/master/test> for the SQL files needed to test the database. Execute <https://github.com/JosephDao/student-database/blob/master/test/mytap.sql> first on MySQL workbench. Then execute <https://github.com/JosephDao/student-database/blob/master/test/test-cases-part-1.sql>, and then execute <https://github.com/JosephDao/student-database/blob/master/test/test-cases-part-2.sql>.

Database File

See <https://github.com/JosephDao/student-database/blob/master/database/database.sql> for the same database file presented below.

CREATE DATABASE IF NOT EXISTS `college` /\*!40100 DEFAULT CHARACTER SET utf8 \*/;

USE `college`;

-- MySQL dump 10.13 Distrib 5.7.17, for Win64 (x86\_64)

--

-- Host: localhost Database: college

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

-- Server version 5.7.18-log

/\*!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 utf8 \*/;

/\*!40103 SET @OLD\_TIME\_ZONE=@@TIME\_ZONE \*/;

/\*!40103 SET TIME\_ZONE='+00:00' \*/;

/\*!40014 SET @OLD\_UNIQUE\_CHECKS=@@UNIQUE\_CHECKS, UNIQUE\_CHECKS=0 \*/;

/\*!40014 SET @OLD\_FOREIGN\_KEY\_CHECKS=@@FOREIGN\_KEY\_CHECKS, FOREIGN\_KEY\_CHECKS=0 \*/;

/\*!40101 SET @OLD\_SQL\_MODE=@@SQL\_MODE, SQL\_MODE='NO\_AUTO\_VALUE\_ON\_ZERO' \*/;

/\*!40111 SET @OLD\_SQL\_NOTES=@@SQL\_NOTES, SQL\_NOTES=0 \*/;

--

-- Table structure for table `class`

--

DROP TABLE IF EXISTS `class`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `class` (

`crn` smallint(5) unsigned NOT NULL AUTO\_INCREMENT,

`subj` varchar(4) NOT NULL,

`crseNo` smallint(4) unsigned NOT NULL,

`title` varchar(35) NOT NULL,

`startTime` time NOT NULL,

`endTime` time NOT NULL,

`days` set('M','Tu','W','Th','F','Sa','Su') NOT NULL,

`deliveryMode` enum('F','O','H') NOT NULL,

PRIMARY KEY (`crn`),

KEY `subj` (`subj`,`crseNo`),

CONSTRAINT `class\_ibfk\_1` FOREIGN KEY (`subj`, `crseNo`) REFERENCES `course` (`subj`, `crseNo`) ON UPDATE CASCADE

) ENGINE=InnoDB AUTO\_INCREMENT=21139 DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `class`

--

LOCK TABLES `class` WRITE;

/\*!40000 ALTER TABLE `class` DISABLE KEYS \*/;

INSERT INTO `class` VALUES (10006,'CS',4315,'Operating Systems','10:00:00','11:15:00','M,W','F'),(10007,'CS',4318,'Theory DB & File Structures','11:30:00','12:45:00','M,W','F'),(10008,'CS',4390,'Artificial Intelligence','10:00:00','11:15:00','Th','H'),(10009,'CS',3420,'Intro to Software Engineering','16:00:00','17:15:00','Tu,Th','F'),(10010,'CS',3326,'Network Security','10:00:00','12:45:00','F','F'),(20084,'ENG',1301,'Composition I','10:00:00','11:15:00','M,W','F'),(20085,'ENG',1301,'Composition I','10:00:00','11:15:00','Tu,Th','F'),(20198,'BIOL',1301,'General Biology I','08:30:00','10:15:00','Tu,Th','F'),(20199,'BIOL',1301,'General Biology I','10:30:00','12:15:00','M,W','F'),(20622,'ART',1301,'Hst of Art: Paleo to Renaiss','07:00:00','08:15:00','Tu,Th','F'),(20627,'ART',1301,'Hst of Art: Paleo to Renaiss','04:00:00','05:15:00','Th','F'),(20645,'MATH',1301,'College Algebra','10:00:00','11:15:00','M,W','F'),(20654,'MATH',1301,'College Algebra','08:30:00','09:45:00','M,Tu,W,Th','F'),(21136,'HIST',1305,'US History to 1877','10:00:00','11:15:00','Th','F'),(21138,'HIST',1305,'US History to 1877','08:30:00','09:45:00','Th','F');

/\*!40000 ALTER TABLE `class` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Temporary view structure for view `classgrade`

--

DROP TABLE IF EXISTS `classgrade`;

/\*!50001 DROP VIEW IF EXISTS `classgrade`\*/;

SET @saved\_cs\_client = @@character\_set\_client;

SET character\_set\_client = utf8;

/\*!50001 CREATE VIEW `classgrade` AS SELECT

1 AS `studentId`,

1 AS `crn`,

1 AS `subj`,

1 AS `crseNo`,

1 AS `title`,

1 AS `grade`,

1 AS `creditHrs`\*/;

SET character\_set\_client = @saved\_cs\_client;

--

-- Table structure for table `course`

--

DROP TABLE IF EXISTS `course`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `course` (

`subj` varchar(4) NOT NULL,

`crseNo` smallint(4) unsigned NOT NULL,

`title` varchar(35) NOT NULL,

`creditHrs` tinyint(4) NOT NULL,

PRIMARY KEY (`subj`,`crseNo`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `course`

--

LOCK TABLES `course` WRITE;

/\*!40000 ALTER TABLE `course` DISABLE KEYS \*/;

INSERT INTO `course` VALUES ('ART',1301,'Hst of Art: Paleo to Renaiss',3),('BIOL',1301,'General Biology I',3),('CS',3326,'Network Security',3),('CS',3420,'Intro to Software Engineering',4),('CS',4315,'Operating Systems',3),('CS',4318,'Theory DB & File Structures',3),('CS',4390,'Artificial Intelligence',4),('ENG',1301,'Composition I',3),('HIST',1305,'US History to 1877',3),('MATH',1301,'College Algebra',3),('MATH',45612,'Calculus I',3);

/\*!40000 ALTER TABLE `course` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Table structure for table `enroll`

--

DROP TABLE IF EXISTS `enroll`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `enroll` (

`crn` smallint(5) unsigned NOT NULL,

`studentId` int(9) unsigned NOT NULL,

`assignment` varchar(45) NOT NULL,

`grade` smallint(3) DEFAULT NULL,

PRIMARY KEY (`crn`,`studentId`,`assignment`),

KEY `studentId` (`studentId`),

CONSTRAINT `enroll\_ibfk\_1` FOREIGN KEY (`crn`) REFERENCES `class` (`crn`) ON UPDATE CASCADE,

CONSTRAINT `enroll\_ibfk\_2` FOREIGN KEY (`studentId`) REFERENCES `student` (`studentId`) ON DELETE CASCADE ON UPDATE CASCADE

) ENGINE=InnoDB DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `enroll`

--

LOCK TABLES `enroll` WRITE;

/\*!40000 ALTER TABLE `enroll` DISABLE KEYS \*/;

INSERT INTO `enroll` VALUES (10006,900300101,'Midterm',88),(10006,900300101,'Paper',90),(10006,900300120,'Final',91),(10007,900300101,'Final',77),(10007,900300101,'Midterm',78),(10007,900300101,'Project',82),(10008,900300101,'Assignment',60),(10008,900300101,'Final',85),(10008,900300101,'Midterm',77),(10009,900300101,'Final',88),(10009,900300101,'Midterm',81),(10009,900300101,'Midterm1',77),(10010,900300101,'Final',77),(10010,900300101,'Paper',90),(10010,900300101,'Project',72),(20085,900300101,'Final',73),(20198,900300102,'Final',84),(20199,900300103,'Final',77),(20622,900300107,'Final',43),(20627,900300108,'Final',50),(20654,900300113,'Final',61),(21138,900300119,'Final',82);

/\*!40000 ALTER TABLE `enroll` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Temporary view structure for view `gpa`

--

DROP TABLE IF EXISTS `gpa`;

/\*!50001 DROP VIEW IF EXISTS `gpa`\*/;

SET @saved\_cs\_client = @@character\_set\_client;

SET character\_set\_client = utf8;

/\*!50001 CREATE VIEW `gpa` AS SELECT

1 AS `studentId`,

1 AS `gpa`\*/;

SET character\_set\_client = @saved\_cs\_client;

--

-- Temporary view structure for view `grade`

--

DROP TABLE IF EXISTS `grade`;

/\*!50001 DROP VIEW IF EXISTS `grade`\*/;

SET @saved\_cs\_client = @@character\_set\_client;

SET character\_set\_client = utf8;

/\*!50001 CREATE VIEW `grade` AS SELECT

1 AS `studentId`,

1 AS `subj`,

1 AS `crseNo`,

1 AS `title`,

1 AS `assignment`,

1 AS `grade`\*/;

SET character\_set\_client = @saved\_cs\_client;

--

-- Table structure for table `student`

--

DROP TABLE IF EXISTS `student`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `student` (

`studentId` int(9) unsigned NOT NULL AUTO\_INCREMENT,

`fName` varchar(35) NOT NULL,

`lName` varchar(35) NOT NULL,

`regStatus` tinyint(1) NOT NULL DEFAULT '0',

`gpa` decimal(2,1) unsigned NOT NULL DEFAULT '4.0',

`email` varchar(254) NOT NULL,

`password` varchar(45) NOT NULL,

PRIMARY KEY (`studentId`),

UNIQUE KEY `email\_UNIQUE` (`email`),

UNIQUE KEY `studentId` (`studentId`)

) ENGINE=InnoDB AUTO\_INCREMENT=900300122 DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `student`

--

LOCK TABLES `student` WRITE;

/\*!40000 ALTER TABLE `student` DISABLE KEYS \*/;

INSERT INTO `student` VALUES (900300101,'Jonathan','Fernandez',1,4.0,'fernandezj28@gator.uhd.edu','dest453'),(900300102,'Cicero','Goldner',1,1.0,'miller.stefanie@example.com','typds34'),(900300103,'Myrtle','Hane',1,1.5,'sophie38@example.net','byzantine4'),(900300104,'Margarete','Carter',0,0.8,'german30@example.com','quip3'),(900300105,'Jamal','Upton',0,3.3,'sister09@example.com','trine345'),(900300106,'Una','Stanton',0,2.2,'maryjane09@example.net','dddripwe1'),(900300107,'Shaylee','Jakubowski',1,1.9,'pwalsh@example.org','seelby9'),(900300108,'Xzavier','Klein',1,0.9,'durgan.art@example.com','6787324'),(900300110,'Mortimer','Braun',0,1.2,'jasper50@example.net','fkyujdtrs67'),(900300111,'Reginald','Gutkowski',0,0.2,'weber.jorge@example.org','guitarqw'),(900300112,'Hanna','Goyette',0,2.2,'hickle.margarett@example.com','astere3io'),(900300113,'Kamron','Christiansen',1,2.4,'emmanuel29@example.net','y4uppie'),(900300115,'Santa','Schuster',0,2.2,'lowell05@example.com','simonand'),(900300116,'Bulah','Hodkiewicz',0,2.8,'umueller@example.org','tilik78'),(900300117,'Erich','Dare',0,2.0,'spencer.hermina@example.net','tilifdaskl3'),(900300118,'Haylee','Osinski',0,0.2,'kenya35@example.net','dfsjkl2349'),(900300119,'Preston','Bode',1,3.2,'mlarson@example.com','skiin34'),(900300120,'Ahmad','Flatley',1,3.3,'zachary27@example.net','bentafd83'),(900300121,'Amalia','Zemlak',0,0.5,'zboncak.savanah@example.org','zerphyili89');

/\*!40000 ALTER TABLE `student` ENABLE KEYS \*/;

UNLOCK TABLES;

--

-- Temporary view structure for view `studentclass`

--

DROP TABLE IF EXISTS `studentclass`;

/\*!50001 DROP VIEW IF EXISTS `studentclass`\*/;

SET @saved\_cs\_client = @@character\_set\_client;

SET character\_set\_client = utf8;

/\*!50001 CREATE VIEW `studentclass` AS SELECT

1 AS `studentId`,

1 AS `crn`,

1 AS `subj`,

1 AS `crseNo`,

1 AS `title`,

1 AS `startTime`,

1 AS `endTime`,

1 AS `days`,

1 AS `deliveryMode`\*/;

SET character\_set\_client = @saved\_cs\_client;

--

-- Dumping events for database 'college'

--

--

-- Dumping routines for database 'college'

--

/\*!50003 DROP FUNCTION IF EXISTS `calcGradePts` \*/;

/\*!50003 SET @saved\_cs\_client = @@character\_set\_client \*/ ;

/\*!50003 SET @saved\_cs\_results = @@character\_set\_results \*/ ;

/\*!50003 SET @saved\_col\_connection = @@collation\_connection \*/ ;

/\*!50003 SET character\_set\_client = utf8 \*/ ;

/\*!50003 SET character\_set\_results = utf8 \*/ ;

/\*!50003 SET collation\_connection = utf8\_general\_ci \*/ ;

/\*!50003 SET @saved\_sql\_mode = @@sql\_mode \*/ ;

/\*!50003 SET sql\_mode = 'STRICT\_TRANS\_TABLES,NO\_AUTO\_CREATE\_USER,NO\_ENGINE\_SUBSTITUTION' \*/ ;

DELIMITER ;;

CREATE DEFINER=`root`@`localhost` FUNCTION `calcGradePts`(n INT) RETURNS tinyint(4)

BEGIN

DECLARE s tinyint;

if n between 93 and 100 then set s = 16;

elseif n between 90 and 92 then set s = 14.8;

elseif n between 87 and 89 then set s = 13.2;

elseif n between 83 and 86 then set s = 12;

elseif n between 80 and 82 then set s = 10.8;

elseif n between 77 and 79 then set s = 9.2;

elseif n between 73 and 76 then set s = 8;

elseif n between 70 and 72 then set s = 6.8;

elseif n between 67 and 69 then set s = 5.2;

elseif n between 63 and 66 then set s = 4;

elseif n between 60 and 62 then set s = 2.8;

else set s = 0;

end if;

return s;

END ;;

DELIMITER ;

/\*!50003 SET sql\_mode = @saved\_sql\_mode \*/ ;

/\*!50003 SET character\_set\_client = @saved\_cs\_client \*/ ;

/\*!50003 SET character\_set\_results = @saved\_cs\_results \*/ ;

/\*!50003 SET collation\_connection = @saved\_col\_connection \*/ ;

--

-- Final view structure for view `classgrade`

--

/\*!50001 DROP VIEW IF EXISTS `classgrade`\*/;

/\*!50001 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!50001 SET @saved\_cs\_results = @@character\_set\_results \*/;

/\*!50001 SET @saved\_col\_connection = @@collation\_connection \*/;

/\*!50001 SET character\_set\_client = utf8 \*/;

/\*!50001 SET character\_set\_results = utf8 \*/;

/\*!50001 SET collation\_connection = utf8\_general\_ci \*/;

/\*!50001 CREATE ALGORITHM=UNDEFINED \*/

/\*!50013 DEFINER=`root`@`localhost` SQL SECURITY DEFINER \*/

/\*!50001 VIEW `classgrade` AS select `e`.`studentId` AS `studentId`,`e`.`crn` AS `crn`,`c`.`subj` AS `subj`,`c`.`crseNo` AS `crseNo`,`c`.`title` AS `title`,round(avg(`e`.`grade`),2) AS `grade`,`c`.`creditHrs` AS `creditHrs` from ((`enroll` `e` join `course` `c`) join `class` `cl`) where ((`e`.`crn` = `cl`.`crn`) and (`cl`.`title` = `c`.`title`)) group by `e`.`crn` \*/;

/\*!50001 SET character\_set\_client = @saved\_cs\_client \*/;

/\*!50001 SET character\_set\_results = @saved\_cs\_results \*/;

/\*!50001 SET collation\_connection = @saved\_col\_connection \*/;

--

-- Final view structure for view `gpa`

--

/\*!50001 DROP VIEW IF EXISTS `gpa`\*/;

/\*!50001 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!50001 SET @saved\_cs\_results = @@character\_set\_results \*/;

/\*!50001 SET @saved\_col\_connection = @@collation\_connection \*/;

/\*!50001 SET character\_set\_client = utf8 \*/;

/\*!50001 SET character\_set\_results = utf8 \*/;

/\*!50001 SET collation\_connection = utf8\_general\_ci \*/;

/\*!50001 CREATE ALGORITHM=UNDEFINED \*/

/\*!50013 DEFINER=`root`@`localhost` SQL SECURITY DEFINER \*/

/\*!50001 VIEW `gpa` AS select `classgrade`.`studentId` AS `studentId`,round((sum(`calcGradePts`(`classgrade`.`grade`)) / sum(`classgrade`.`creditHrs`)),2) AS `gpa` from `classgrade` group by `classgrade`.`studentId` \*/;

/\*!50001 SET character\_set\_client = @saved\_cs\_client \*/;

/\*!50001 SET character\_set\_results = @saved\_cs\_results \*/;

/\*!50001 SET collation\_connection = @saved\_col\_connection \*/;

--

-- Final view structure for view `grade`

--

/\*!50001 DROP VIEW IF EXISTS `grade`\*/;

/\*!50001 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!50001 SET @saved\_cs\_results = @@character\_set\_results \*/;

/\*!50001 SET @saved\_col\_connection = @@collation\_connection \*/;

/\*!50001 SET character\_set\_client = utf8 \*/;

/\*!50001 SET character\_set\_results = utf8 \*/;

/\*!50001 SET collation\_connection = utf8\_general\_ci \*/;

/\*!50001 CREATE ALGORITHM=UNDEFINED \*/

/\*!50013 DEFINER=`root`@`localhost` SQL SECURITY DEFINER \*/

/\*!50001 VIEW `grade` AS select `e`.`studentId` AS `studentId`,`c`.`subj` AS `subj`,`c`.`crseNo` AS `crseNo`,`c`.`title` AS `title`,`e`.`assignment` AS `assignment`,`e`.`grade` AS `grade` from (`class` `c` join `enroll` `e`) where (`c`.`crn` = `e`.`crn`) \*/;

/\*!50001 SET character\_set\_client = @saved\_cs\_client \*/;

/\*!50001 SET character\_set\_results = @saved\_cs\_results \*/;

/\*!50001 SET collation\_connection = @saved\_col\_connection \*/;

--

-- Final view structure for view `studentclass`

--

/\*!50001 DROP VIEW IF EXISTS `studentclass`\*/;

/\*!50001 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!50001 SET @saved\_cs\_results = @@character\_set\_results \*/;

/\*!50001 SET @saved\_col\_connection = @@collation\_connection \*/;

/\*!50001 SET character\_set\_client = utf8 \*/;

/\*!50001 SET character\_set\_results = utf8 \*/;

/\*!50001 SET collation\_connection = utf8\_general\_ci \*/;

/\*!50001 CREATE ALGORITHM=UNDEFINED \*/

/\*!50013 DEFINER=`root`@`localhost` SQL SECURITY DEFINER \*/

/\*!50001 VIEW `studentclass` AS select `cg`.`studentId` AS `studentId`,`cg`.`crn` AS `crn`,`cg`.`subj` AS `subj`,`cg`.`crseNo` AS `crseNo`,`cg`.`title` AS `title`,`c`.`startTime` AS `startTime`,`c`.`endTime` AS `endTime`,`c`.`days` AS `days`,`c`.`deliveryMode` AS `deliveryMode` from (`classgrade` `cg` join `class` `c`) where (`cg`.`crn` = `c`.`crn`) \*/;

/\*!50001 SET character\_set\_client = @saved\_cs\_client \*/;

/\*!50001 SET character\_set\_results = @saved\_cs\_results \*/;

/\*!50001 SET collation\_connection = @saved\_col\_connection \*/;

/\*!40103 SET TIME\_ZONE=@OLD\_TIME\_ZONE \*/;

/\*!40101 SET SQL\_MODE=@OLD\_SQL\_MODE \*/;

/\*!40014 SET FOREIGN\_KEY\_CHECKS=@OLD\_FOREIGN\_KEY\_CHECKS \*/;

/\*!40014 SET UNIQUE\_CHECKS=@OLD\_UNIQUE\_CHECKS \*/;

/\*!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 \*/;

/\*!40111 SET SQL\_NOTES=@OLD\_SQL\_NOTES \*/;

-- Dump completed on 2017-04-30 9:53:33