1BM19CS219~ MAHANTESH GATTINA

-- phpMyAdmin SQL Dump

-- version 5.1.0

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

--

-- Host: localhost

-- Generation Time: Jun 28, 2021 at 05:55 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: `COLLEGE DATABASE`

--

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

--

-- Table structure for table `CLASS`

--

CREATE TABLE `CLASS` (

`USN` varchar(10) NOT NULL,

`SSID` varchar(10) NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--

-- Dumping data for table `CLASS`

--

INSERT INTO `CLASS` (`USN`, `SSID`) VALUES

('1RN13CS020', 'CSE8A'),

('1RN13CS062', 'CSE8A'),

('1RN13CS066', 'CSE8B'),

('1RN13CS091', 'CSE8C'),

('1RN14CS010', 'CSE7A'),

('1RN14CS025', 'CSE7A'),

('1RN14CS032', 'CSE7A'),

('1RN15CS011', 'CSE4A'),

('1RN15CS029', 'CSE4A'),

('1RN15CS045', 'CSE4B'),

('1RN15CS091', 'CSE4C'),

('1RN16CS045', 'CSE3A'),

('1RN16CS088', 'CSE3B'),

('1RN16CS122', 'CSE3C');

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

--

-- Table structure for table `IAMARKS`

--

CREATE TABLE `IAMARKS` (

`USN` char(10) NOT NULL,

`SUBCODE` char(10) NOT NULL,

`SSID` char(10) NOT NULL,

`TEST1` int(11) NOT NULL,

`TEST2` int(11) NOT NULL,

`TEST3` int(11) NOT NULL,

`FINALIA` int(11) DEFAULT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--

-- Dumping data for table `IAMARKS`

--

INSERT INTO `IAMARKS` (`USN`, `SUBCODE`, `SSID`, `TEST1`, `TEST2`, `TEST3`, `FINALIA`) VALUES

('1RN13CS091', '10CS81', 'CSE8C', 15, 16, 18, NULL),

('1RN13CS091', '10CS82', 'CSE8C', 12, 19, 14, NULL),

('1RN13CS091', '10CS83', 'CSE8C', 19, 15, 20, NULL),

('1RN13CS091', '10CS84', 'CSE8C', 20, 16, 19, NULL),

('1RN13CS091', '10CS85', 'CSE8C', 15, 15, 12, NULL);

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

--

-- Table structure for table `SEMSEC`

--

CREATE TABLE `SEMSEC` (

`SSID` varchar(10) NOT NULL,

`SEM` int(11) NOT NULL,

`SEC` char(1) NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--

-- Dumping data for table `SEMSEC`

--

INSERT INTO `SEMSEC` (`SSID`, `SEM`, `SEC`) VALUES

('CSE1A', 1, 'A'),

('CSE1B', 1, 'B'),

('CSE1C', 1, 'C'),

('CSE2A', 2, 'A'),

('CSE2B', 2, 'B'),

('CSE2C', 2, 'C'),

('CSE3A', 3, 'A'),

('CSE3B', 3, 'B'),

('CSE3C', 3, 'C'),

('CSE4A', 4, 'A'),

('CSE4B', 4, 'B'),

('CSE4C', 4, 'C'),

('CSE5A', 5, 'A'),

('CSE5B', 5, 'B'),

('CSE5C', 5, 'C'),

('CSE6A', 6, 'A'),

('CSE6B', 6, 'B'),

('CSE6C', 6, 'C'),

('CSE7A', 7, 'A'),

('CSE7B', 7, 'B'),

('CSE7C', 7, 'C'),

('CSE8A', 8, 'A'),

('CSE8B', 8, 'B'),

('CSE8C', 8, 'C');

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

--

-- Table structure for table `STUDENT`

--

CREATE TABLE `STUDENT` (

`USN` char(10) NOT NULL,

`SNAME` varchar(20) NOT NULL,

`ADDRESS` varchar(30) NOT NULL,

`PHONE` bigint(20) NOT NULL,

`GENDER` varchar(7) NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--

-- Dumping data for table `STUDENT`

--

INSERT INTO `STUDENT` (`USN`, `SNAME`, `ADDRESS`, `PHONE`, `GENDER`) VALUES

('1RN13CS020', 'AKSHAY', 'BELAGAVI', 8877881122, 'M'),

('1RN13CS062', 'SANDHYA', 'BENGALURU', 7722829912, 'F'),

('1RN13CS066', 'SUPRIYA', 'MANGALURU', 8877881122, 'F'),

('1RN13CS091', 'TEESHA', 'BENGALURU', 7712312312, 'F'),

('1RN14CS010', 'ABHAY', 'BENGALURU', 9900211201, 'M'),

('1RN14CS025', 'ASMI', 'BENGALURU', 7894737377, 'F'),

('1RN14CS032', 'BHASKAR', 'BENGALURU', 9923211099, 'M'),

('1RN15CS011', 'AJAY', 'TUMKUR', 9845091341, 'M'),

('1RN15CS029', 'CHITRA', 'DAVANGERE', 7696772121, 'F'),

('1RN15CS045', 'JEEVA', 'BELLARY', 9944850121, 'M'),

('1RN15CS091', 'SANTOSH', 'MANGALURU', 8812332201, 'M'),

('1RN16CS045', 'ISMAIL', 'KALBURGI', 9900232201, 'M'),

('1RN16CS088', 'SAMEERA', 'SHIMOGA', 9905542212, 'F'),

('1RN16CS122', 'VINAYAKA', 'CHIKAMAGALUR', 8800880011, 'M');

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

--

-- Table structure for table `SUBJECT`

--

CREATE TABLE `SUBJECT` (

`SUBCODE` varchar(10) NOT NULL,

`TITLE` varchar(20) NOT NULL,

`SEM` int(11) NOT NULL,

`CREDITS` int(11) NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--

-- Dumping data for table `SUBJECT`

--

INSERT INTO `SUBJECT` (`SUBCODE`, `TITLE`, `SEM`, `CREDITS`) VALUES

('10CS71', 'OOAD', 7, 4),

('10CS72', 'ECS', 7, 4),

('10CS73', 'PTW', 7, 4),

('10CS74', 'DWDM', 7, 4),

('10CS75', 'JAVA', 7, 4),

('10CS76', 'SAN', 7, 4),

('10CS81', 'ACA', 8, 4),

('10CS82', 'SSM', 8, 4),

('10CS83', 'NM', 8, 4),

('10CS84', 'CC', 8, 4),

('10CS85', 'PW', 8, 4),

('15CS31', 'M3', 3, 4),

('15CS32', 'ADE', 3, 4),

('15CS33', 'DSA', 3, 4),

('15CS34', 'CO', 3, 4),

('15CS35', 'USP', 3, 3),

('15CS36', 'DMS', 3, 3),

('15CS41', 'M4', 4, 4),

('15CS42', 'SE', 4, 4),

('15CS43', 'DAA', 4, 4),

('15CS44', 'MPMC', 4, 4),

('15CS45', 'OOC', 4, 3),

('15CS46', 'DC', 4, 3),

('15CS51', 'ME', 5, 4),

('15CS52', 'CN', 5, 4),

('15CS53', 'DBMS', 5, 4),

('15CS54', 'ATC', 5, 4),

('15CS55', 'JAVA', 5, 3),

('15CS56', 'AI', 5, 3);

--

-- Indexes for dumped tables

--

--

-- Indexes for table `CLASS`

--

ALTER TABLE `CLASS`

ADD KEY `USN` (`USN`),

ADD KEY `SSID` (`SSID`);

--

-- Indexes for table `IAMARKS`

--

ALTER TABLE `IAMARKS`

ADD KEY `USN` (`USN`),

ADD KEY `SUBCODE` (`SUBCODE`),

ADD KEY `SSID` (`SSID`);

--

-- Indexes for table `SEMSEC`

--

ALTER TABLE `SEMSEC`

ADD PRIMARY KEY (`SSID`);

--

-- Indexes for table `STUDENT`

--

ALTER TABLE `STUDENT`

ADD PRIMARY KEY (`USN`);

--

-- Indexes for table `SUBJECT`

--

ALTER TABLE `SUBJECT`

ADD PRIMARY KEY (`SUBCODE`);

--

-- Constraints for dumped tables

--

--

-- Constraints for table `CLASS`

--

ALTER TABLE `CLASS`

ADD CONSTRAINT `CLASS\_ibfk\_1` FOREIGN KEY (`USN`) REFERENCES `STUDENT` (`USN`) ON DELETE CASCADE ON UPDATE CASCADE,

ADD CONSTRAINT `CLASS\_ibfk\_2` FOREIGN KEY (`SSID`) REFERENCES `SEMSEC` (`SSID`) ON DELETE CASCADE ON UPDATE CASCADE;

--

-- Constraints for table `IAMARKS`

--

ALTER TABLE `IAMARKS`

ADD CONSTRAINT `IAMARKS\_ibfk\_1` FOREIGN KEY (`USN`) REFERENCES `STUDENT` (`USN`) ON DELETE CASCADE ON UPDATE CASCADE,

ADD CONSTRAINT `IAMARKS\_ibfk\_2` FOREIGN KEY (`SUBCODE`) REFERENCES `SUBJECT` (`SUBCODE`) ON DELETE CASCADE ON UPDATE CASCADE,

ADD CONSTRAINT `IAMARKS\_ibfk\_3` FOREIGN KEY (`SSID`) REFERENCES `SEMSEC` (`SSID`) ON DELETE CASCADE ON UPDATE CASCADE;

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 \*/;

1. **List all the student details studying in fourth semester ‘C’ section.**

SELECT \* FROM STUDENT WHERE USN IN (SELECT USN FROM CLASS WHERE SSID = (SELECT SSID FROM SEMSEC WHERE SEM = 4 AND SEC = 'C'))

1RN15CS091 SANTOSH MANGALURU 8812332201 M

1. **Compute the total number of male and female students in each semester and in each section.**

SELECT S.SEM,S.SEC,G.GENDER,COUNT(G.GENDER) AS COUNT FROM SEMSEC S,STUDENT G, CLASS C WHERE C.USN = G.USN AND C.SSID = S.SSID GROUP BY S.SEM,S.SEC,G.GENDER ORDER BY S.SEM

SEM SEC GENDER COUNT

3 A M 1

3 B F 1

3 C M 1

4 A F 1

4 A M 1

4 B M 1

4 C M 1

7 A F 1

7 A M 2

8 A F 1

8 A M 1

8 B F 1

8 C F 1

1. **Create a view of Test1 marks of student USN ‘1BI15CS101’ in all subjects.**

CREATE VIEW STUDENT\_TEST1\_MARKS\_VIEW AS SELECT SUBCODE,TEST1 FROM IAMARKS WHERE USN = '1RN13CS091';

SELECT \* FROM STUDENT\_TEST1\_MARKS\_VIEW

SUBCODE TEST1

10CS81 15

10CS82 12

10CS83 19

10CS84 20

10CS85 15

1. **Calculate the FinalIA (average of best two test marks) and update the corresponding table for all students.**

Before:

SELECT \* FROM IAMARKS

USN SUBCODE SSID TEST1 TEST2 TEST3 FINALIA

1RN13CS091 10CS81 CSE8C 15 16 18

NULL

1RN13CS091 10CS82 CSE8C 12 19 14

NULL

1RN13CS091 10CS83 CSE8C 19 15 20

NULL

1RN13CS091 10CS84 CSE8C 20 16 19

NULL

1RN13CS091 10CS85 CSE8C 15 15 12

NULL

DELIMITER //

CREATE PROCEDURE AVG\_MARKS()

BEGIN

DECLARE C\_A INTEGER;

DECLARE C\_B INTEGER;

DECLARE C\_C INTEGER;

DECLARE C\_SUM INTEGER;

DECLARE C\_AVG INTEGER;

DECLARE C\_USN VARCHAR(10);

DECLARE C\_SUBCODE VARCHAR(8);

DECLARE C\_SSID VARCHAR(5);

DECLARE C\_IAMARKS CURSOR FOR

SELECT GREATEST(TEST1,TEST2) AS A, GREATEST(TEST1,TEST3) AS B, GREATEST(TEST3,TEST2) AS C, USN, SUBCODE, SSID

FROM IAMARKS

WHERE FINALIA IS NULL

FOR UPDATE;

OPEN C\_IAMARKS;

LOOP

FETCH C\_IAMARKS INTO C\_A, C\_B, C\_C, C\_USN, C\_SUBCODE, C\_SSID;

IF (C\_A != C\_B) THEN

SET C\_SUM=C\_A+C\_B;

ELSE

SET C\_SUM=C\_A+C\_C;

END IF;

SET C\_AVG=C\_SUM/2;

UPDATE IAMARKS SET FINALIA = C\_AVG

WHERE USN = C\_USN AND SUBCODE = C\_SUBCODE AND SSID = C\_SSID;

END LOOP;

CLOSE C\_IAMARKS;

END;

//

After:

select \* from IAMARKS

USN SUBCODE SSID TEST1 TEST2 TEST3 FINALIA

1RN13CS091 10CS81 CSE8C 15 16 18 17

1RN13CS091 10CS82 CSE8C 12 19 14 17

1RN13CS091 10CS83 CSE8C 19 15 20 20

1RN13CS091 10CS84 CSE8C 20 16 19 20

1RN13CS091 10CS85 CSE8C 15 15 12 15

SELECT S.USN,S.SNAME,S.ADDRESS,S.PHONE,S.GENDER,

(CASE

WHEN IA.FINALIA BETWEEN 17 AND 20 THEN'OUTSTANDING' WHEN

IA.FINALIA BETWEEN 12 AND 16 THEN 'AVERAGE' ELSE 'WEAK'

END) AS CAT

FROM STUDENT S, SEMSEC SS, IAMARKS IA, SUBJECT SUB

WHERE S.USN = IA.USN AND

SS.SSID = IA.SSID AND

SUB.SUBCODE = IA.SUBCODE AND

SUB.SEM = 8

**v.**

**Categorize students based on the following criterion:**

**If FinalIA = 17 to 20 then CAT = ‘Outstanding’**

**If FinalIA = 12 to 16 then CAT = ‘Average’**

**If FinalIA< 12 then CAT = ‘Weak’**

**Give these details only for 8th semester A, B, and C section students.**

USN SNAME ADDRESS PHONE GENDER CAT

1RN13CS091 TEESHA BENGALURU 7712312312 F OUTSTANDING

1RN13CS091 TEESHA BENGALURU 7712312312 F OUTSTANDING

1RN13CS091 TEESHA BENGALURU 7712312312 F OUTSTANDING

1RN13CS091 TEESHA BENGALURU 7712312312 F OUTSTANDING

1RN13CS091 TEESHA BENGALURU 7712312312 F AVERAGE