Assignment 2 : SQL Views

Name: Muhammad Shahzaib Waseem
Class: BSCS-6B
Registration Number: 187330

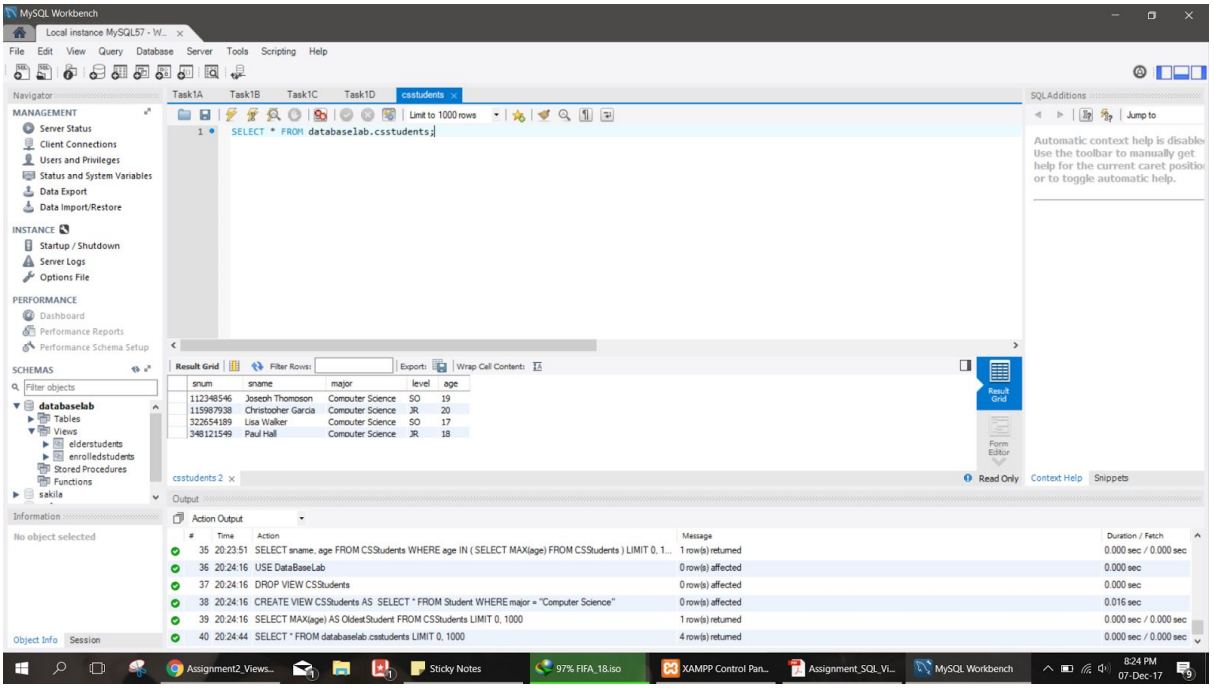
Task1

CSStudents View

Code

```
USE DataBaseLab;

CREATE VIEW CSStudents AS
        SELECT * FROM Student
        WHERE major = "Computer Science";
```

Result

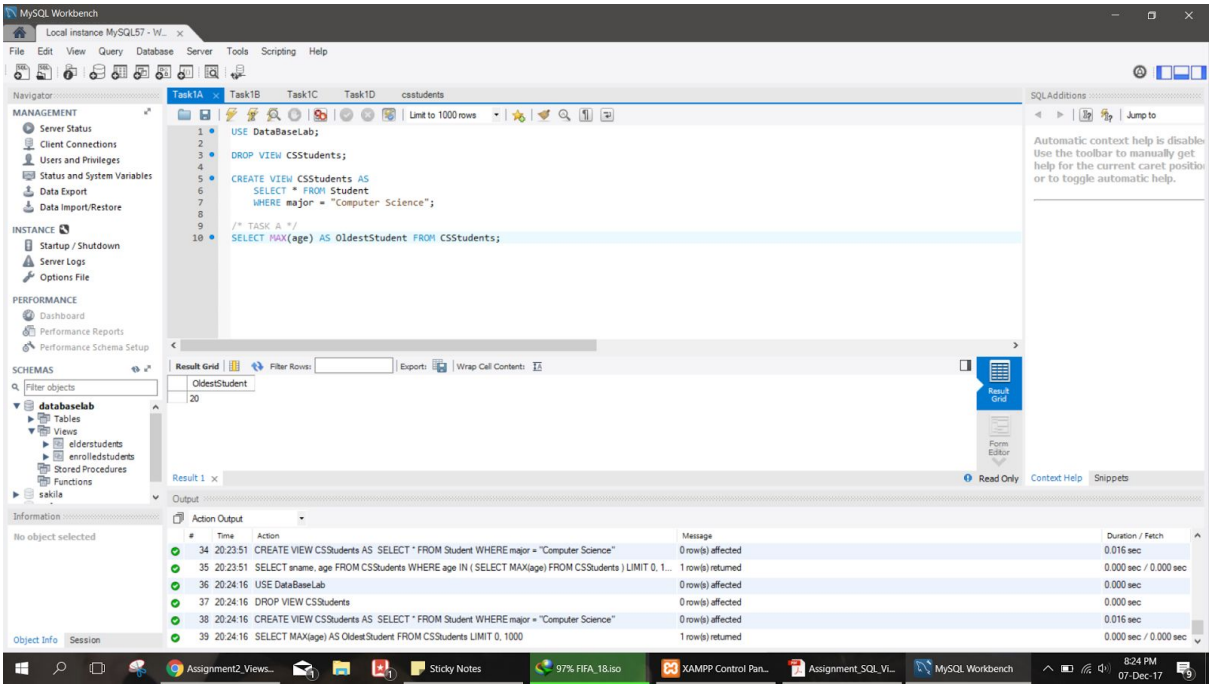


Task A

Code

```
USE DataBaseLab;

DROP VIEW CSStudents;

CREATE VIEW CSStudents AS
        SELECT * FROM Student
        WHERE major = "Computer Science";

/* TASK A */
SELECT MAX(age) AS OldestStudent FROM CSStudents;
```

Result

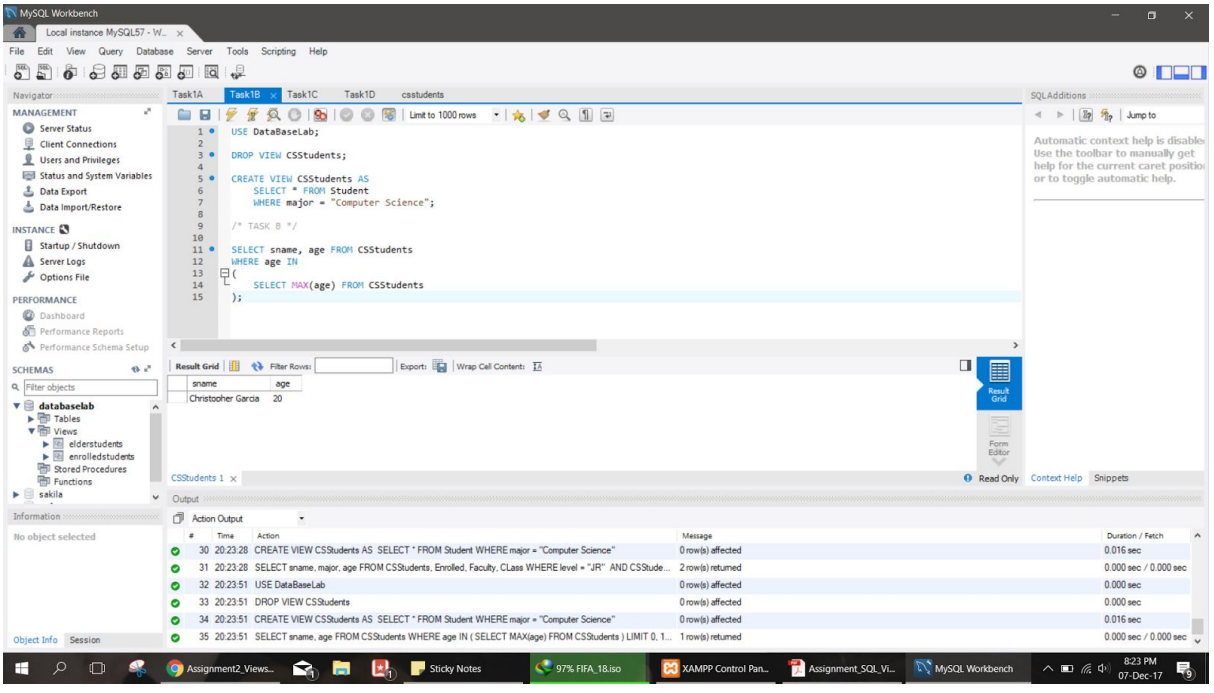


Task B

Code

```
USE DataBaseLab;

DROP VIEW CSStudents;

CREATE VIEW CSStudents AS
	SELECT * FROM Student
	WHERE major = "Computer Science";

/* TASK B */

SELECT sname, age FROM CSStudents
WHERE age IN
(
	SELECT MAX(age) FROM CSStudents
);
```

Result

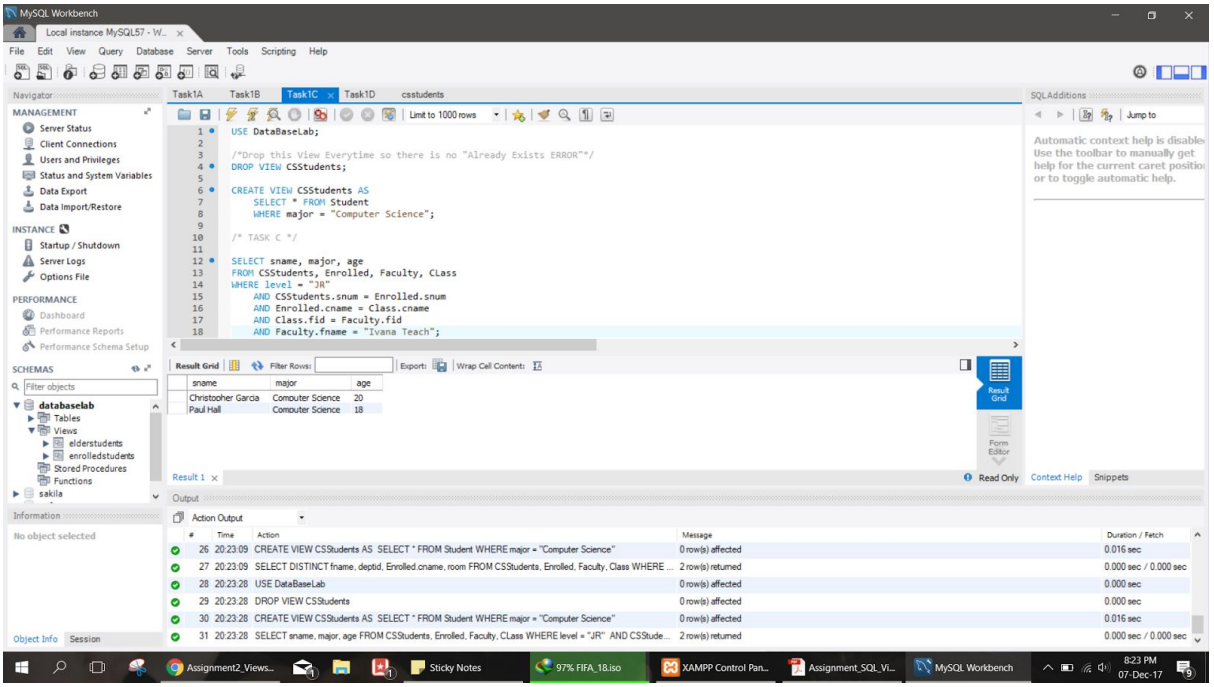


Task C

Code

```
USE DataBaseLab;

/*Drop this View Everytime so there is no "Already Exists ERROR"*/
DROP VIEW CSStudents;

CREATE VIEW CSStudents AS
        SELECT * FROM Student
        WHERE major = "Computer Science";

/* TASK C */

SELECT sname, major, age
FROM CSStudents, Enrolled, Faculty, CLass
WHERE level = "JR"
        AND CSStudents.snum = Enrolled.snum
        AND Enrolled.cname = Class.cname
        AND Class.fid = Faculty.fid
        AND Faculty.fname = "Ivana Teach";
```

Result

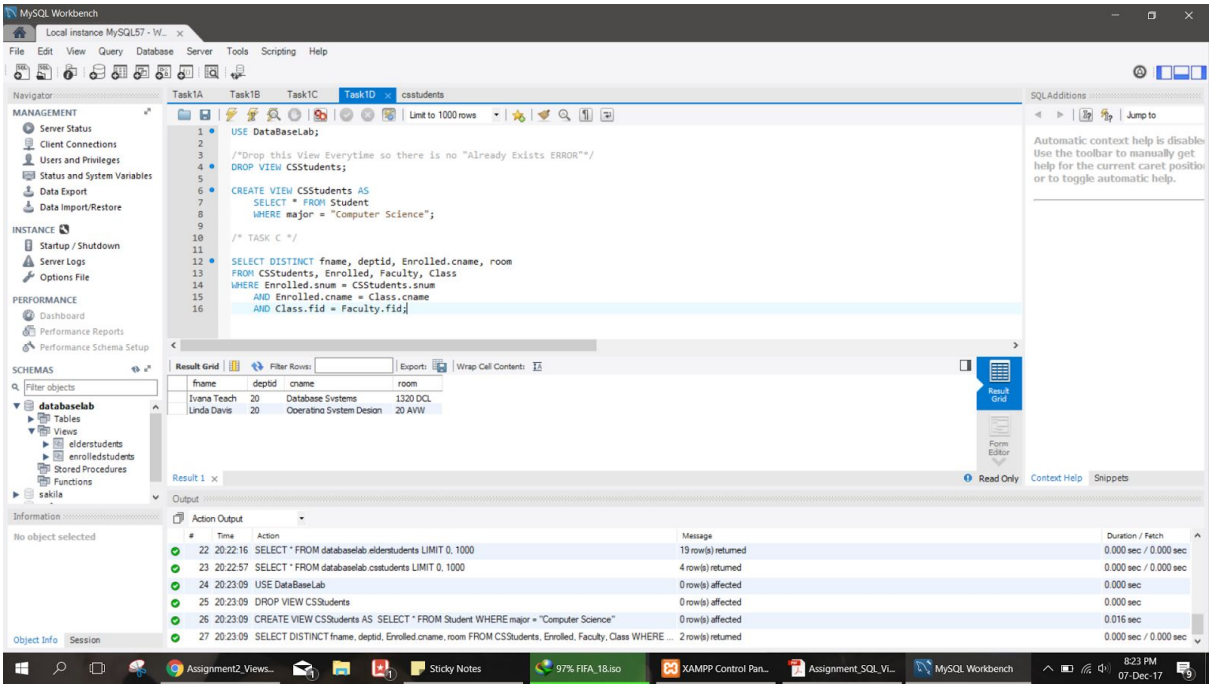


Task D

Code

```
USE DataBaseLab;

/*Drop this View Everytime so there is no "Already Exists ERROR"*/
DROP VIEW CSStudents;

CREATE VIEW CSStudents AS
        SELECT * FROM Student
        WHERE major = "Computer Science";

/* TASK C */

SELECT DISTINCT fname, deptid, Enrolled.cname, room
FROM CSStudents, Enrolled, Faculty, Class
WHERE Enrolled.snum = CSStudents.snum
        AND Enrolled.cname = Class.cname
        AND Class.fid = Faculty.fid;
```

Result



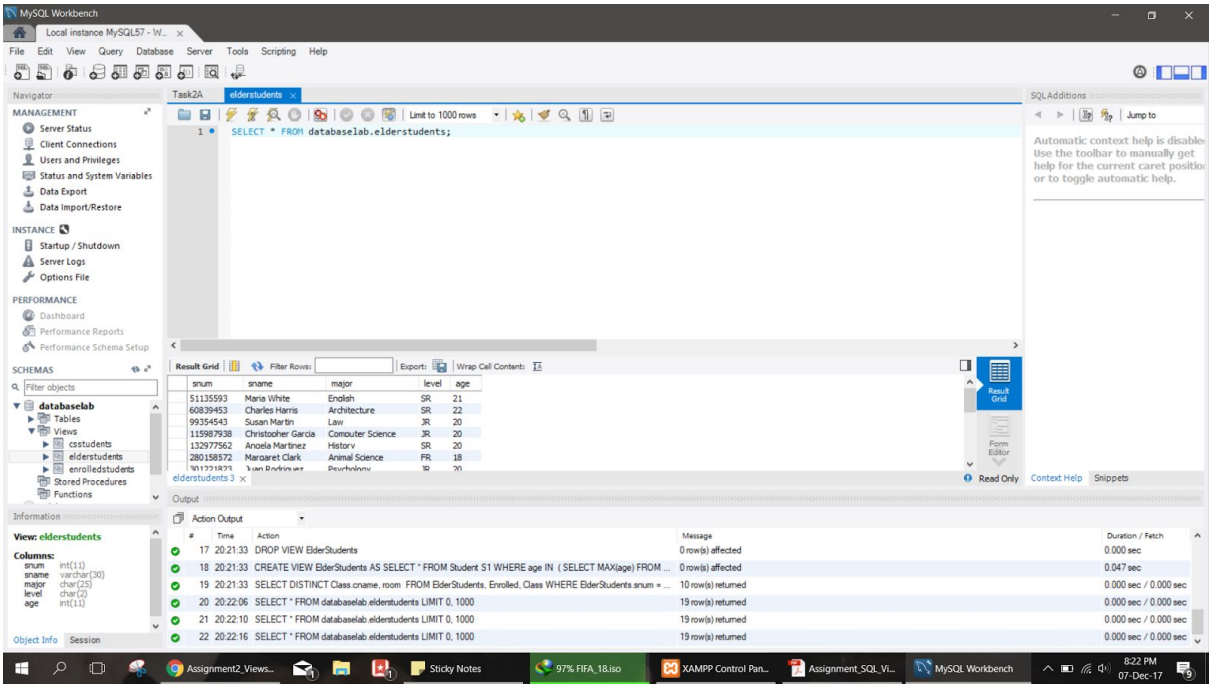
Task 2

ElderStudents View

Code

```
USE DataBaseLab;


CREATE VIEW ElderStudents AS SELECT * FROM Student S1
WHERE age IN
(
	SELECT MAX(age) FROM Student S2
	WHERE S1.major = S2.major
	GROUP BY major
);
```

Result

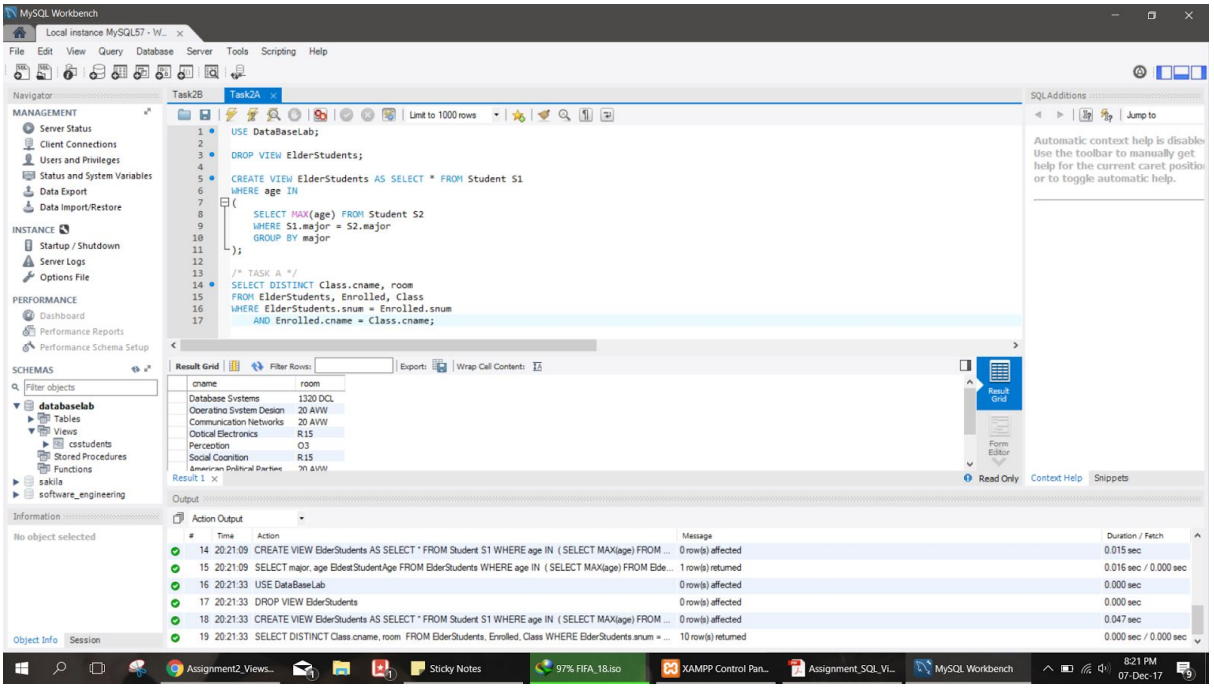


Task A

Code

```
USE DataBaseLab;

DROP VIEW ElderStudents;

CREATE VIEW ElderStudents AS SELECT * FROM Student S1
WHERE age IN
(
	SELECT MAX(age) FROM Student S2
	WHERE S1.major = S2.major
	GROUP BY major
);

/* TASK A */
SELECT DISTINCT Class.cname, room
FROM ElderStudents, Enrolled, Class
WHERE ElderStudents.snum = Enrolled.snum
	AND Enrolled.cname = Class.cname;
```

Result

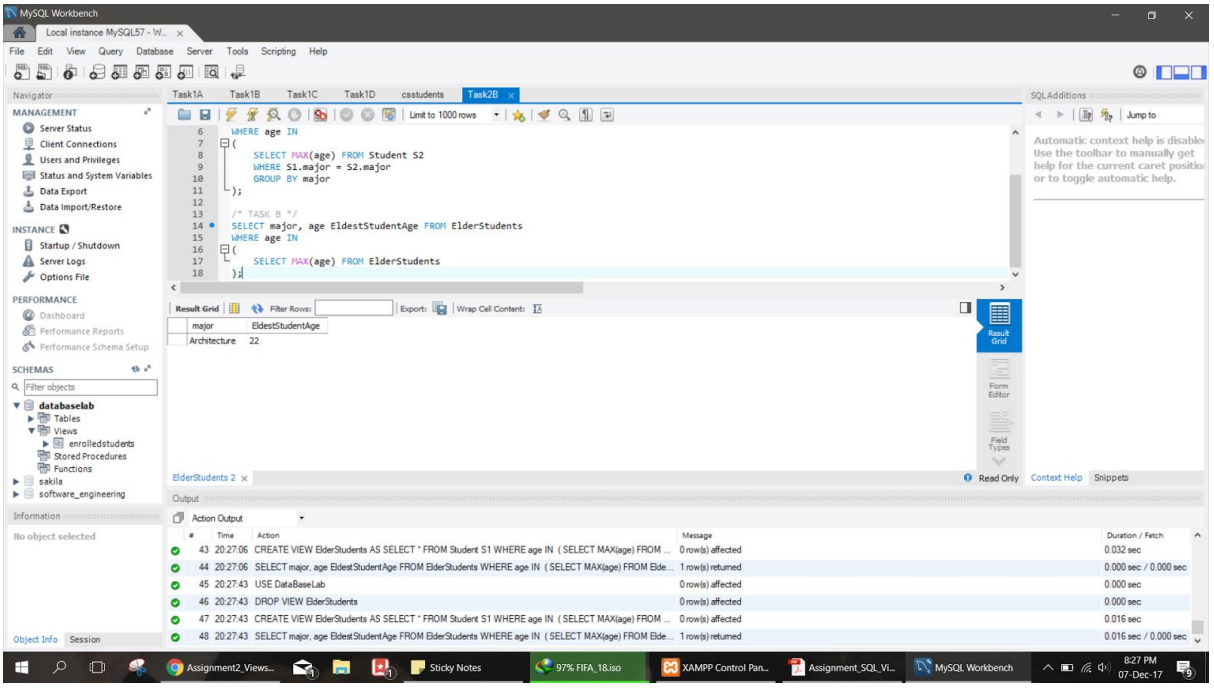


Task B

Code

```
USE DataBaseLab;

DROP VIEW ElderStudents;

CREATE VIEW ElderStudents AS SELECT * FROM Student S1
WHERE age IN
(
	SELECT MAX(age) FROM Student S2
	WHERE S1.major = S2.major
	GROUP BY major
);

/* TASK B */
SELECT major, age EldestStudentAge FROM ElderStudents
WHERE age IN
(
	SELECT MAX(age) FROM ElderStudents
);
```

Result

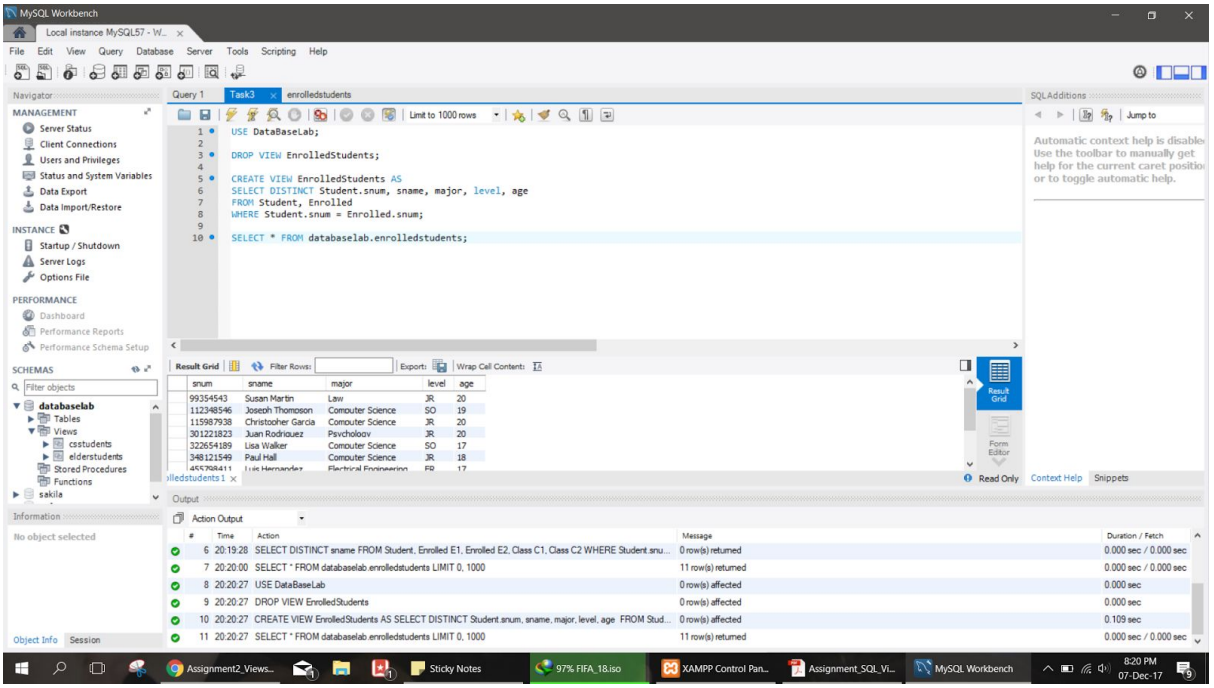


Task 3 (EnrolledStudents View)

Code

```
USE DataBaseLab;

CREATE VIEW EnrolledStudents AS
SELECT DISTINCT Student.snum, sname, major, level, age
FROM Student, Enrolled
WHERE Student.snum = Enrolled.snum;
```

Result

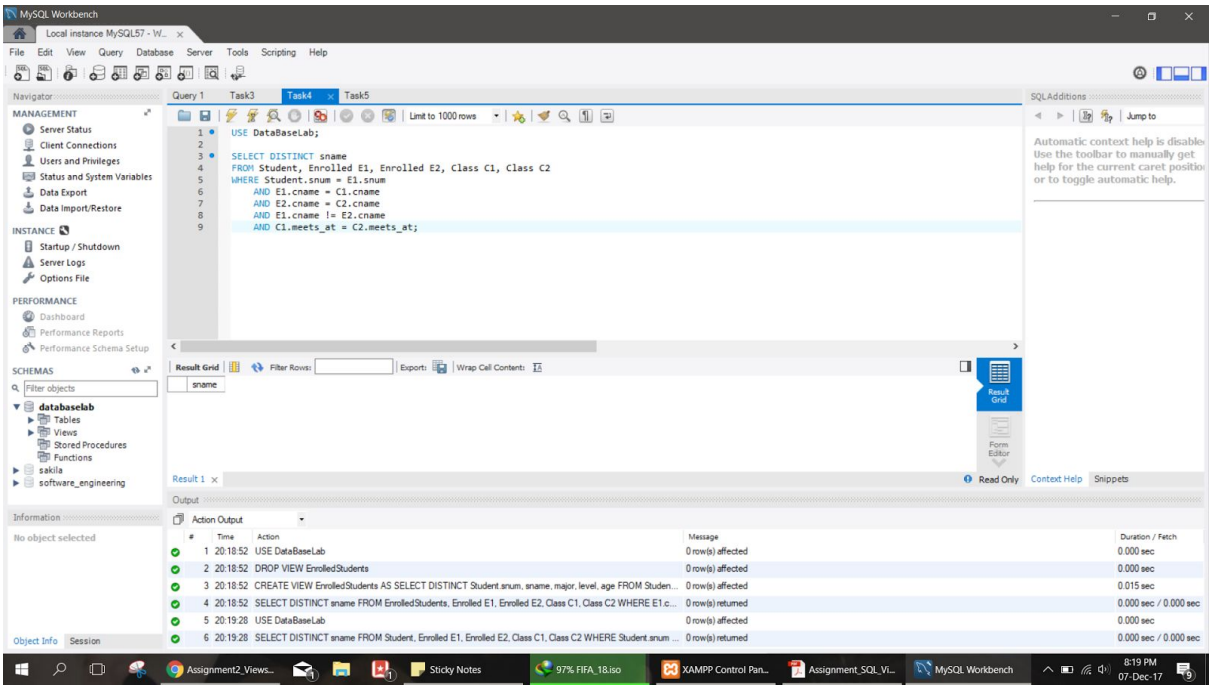


Task 4

Code

```
USE DataBaseLab;

SELECT DISTINCT sname
FROM Student, Enrolled E1, Enrolled E2, Class C1, Class C2
WHERE Student.snum = E1.snum
        AND E1.cname = C1.cname
        AND E2.cname = C2.cname
        AND E1.cname != E2.cname
        AND C1.meets_at = C2.meets_at;
```

Result



Task 5

Code

```
USE DataBaseLab;

DROP VIEW EnrolledStudents;

CREATE VIEW EnrolledStudents AS
SELECT DISTINCT Student.snum, sname, major, level, age
FROM Student, Enrolled
WHERE Student.snum = Enrolled.snum;

SELECT DISTINCT sname
FROM EnrolledStudents, Enrolled E1, Enrolled E2, Class C1, Class C2
WHERE E1.cname = C1.cname
        AND E1.snum = E2.snum
   AND E2.cname = C2.cname
   AND E1.cname != E2.cname
        AND C1.meets_at = C2.meets_at;
```

Result