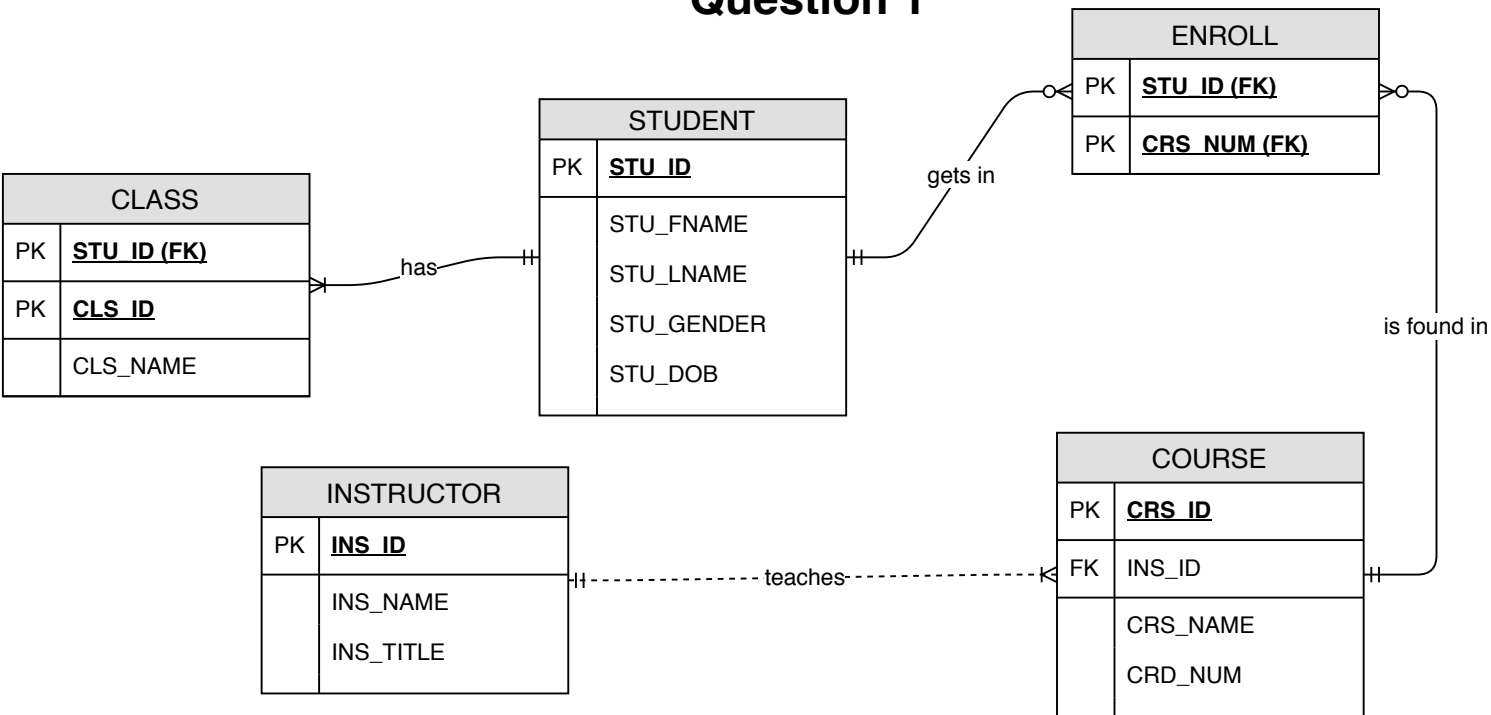


Assignment 1

Question 1



Assignment 1:

- ② 1. Query the id number and the grade of the students who enrolled the course whose course number is C2

$$\pi_{SNO, GRADE} (\sigma_{CNO="C2"} (S \bowtie SC))$$

2. Query the id number and the name of the students who enrolled the course whose course number is C2.

$$\pi_{SNO, SNAME} (\sigma_{CNO="C2"} (S \bowtie SC))$$

3. Query the id number and the name of students who enrolled the course whose name is "SQL and NoSQL".

$$\pi_{SNO, SNAME} (\sigma_{CNAME="SQL and NoSQL"} (S \bowtie SC \bowtie C))$$

4. Query the id number of the student who enrolled C2 or C4 course

$$\pi_{SNO} (\sigma_{CNO="C2" \vee CNO="C4"} (S \bowtie SC))$$

5. Query the id number of the students who atleast enrolled in C2 and C4 courses

$$\pi_{SNO} (\sigma_{1=4 \wedge (2="C2" \wedge 5="C4")} (SC \bowtie SC))$$

According to exercise 1 question 6 notation where numbers indicate columns.

6. Query the id number, name and age of the students who did not enroll C2 course

$\pi_{SNO, SNAME, AGE} (S \times ISC - (C_{CNO="C2"} \times ISC))$

7. Query the names of the students who enrolled in all of the courses

$\pi_{SNAME} (S \times ISC \% \pi_{CNO} (C))$

8. Query all of the id number and name of the students who enrolled the courses that were also enrolled by the student whose id number is 53.

$\pi_{SNO, SNAME, CNO} (S \times ISC) \% \pi_{CNO} (C_{SNO='53'} (S))$

9. Query all of the id number and name of the male students whose grade is 80-90 in the course of "SQL and NoSQL".

$\pi_{SNO, SNAME} (C_{GENDER='MALE' \wedge (GRADE \geq 80 \wedge GRADE \leq 90)} \times C_{CNAME="SQL and NoSQL"} (S \times ISC \times IC))$

10. Query all the id number and the name, gender and department of students who did not enroll in "Topics in Informatics".

$\pi_{SNO, SNAME, GENDER, DEPT} (C_{CNAME \neq "Topics in Informatics"} (S \times ISC \times IC))$