Question3

1)

$$\pi_{name}(\delta_{(gender='female')} \; AND_{(job='designer')}(JobRequirement \bowtie Enrolment \bowtie Student))$$

2)

$$A \leftarrow \pi_{name}(\delta_{(job='designer')}(JobRrequirement) \bowtie Enrolment \bowtie Student)$$

$$A - \pi_{name}(Student \bowtie Enrolment \bowtie \delta_{(faculty='law')}(Course))$$

3)

$$A \leftarrow \pi_{courseName}(Course \bowtie Enrolment \bowtie \delta_{(gender='female')}(Student))$$

$$B \leftarrow \pi_{courseName}(Course \bowtie Enrolment \bowtie \delta_{(gender='male')}(Student))$$

$$\pi_{courseName}(Course) - A \cap B$$