

Question 2 Relational Algebra Expressions

Relational Algebra
SQL
Group Editor

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```

1  -- (a) Get the names of courses in the CS department
2
3   $\sigma$  Department = 'CS' (COURSE)

```

execute query

download history

σ Department = 'CS'

COURSE

σ Department = 'CS' (COURSE)

COURSE.Course_name	COURSE.Course_number	COURSE.Credit_hours	COURSE.Department
Intro_to_Computer_Science	CS1310	4	CS
Data_Structures	CS3320	4	CS
Database	CS3380	3	CS

Figure1: Q2/a Expression & Output

```

1   $\pi$  Name (STUDENT  $\bowtie$   $\sigma$  Grade = 'A' (GRADE_REPORT)  $\bowtie$   $\sigma$  Course_number = 'CS3380' (SECTION))

```

execute query

download history

relational algebra calculator

π Name

\bowtie

\bowtie

σ Course_number = 'CS3380'

STUDENT

σ Grade = 'A'

GRADE_REPORT

SECTION

π Name (STUDENT \bowtie σ Grade = 'A' (GRADE_REPORT) \bowtie σ Course_number = 'CS3380' (SECTION))

STUDENT.Name
BROWN

Figure2: Q2/b Expression & Output

Figure3: Q2/c Expression & Output

Figure4: Q2/d Expression & Output